HONOLULU RAIL TRANSIT PROJECT

DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT/SECTION 4(f) EVALUATION

HART

HONOLULU AUTHORITY for RAPID TRANSPORTATION

U.S. Department of Transportation
Federal Transit Administration

MAY 2013

Honolulu Rail Transit Project

(formerly the Honolulu High-Capacity Transit Corridor Project)
City and County of Honolulu, Oʻahu, Hawaiʻi

Draft Supplemental Environmental Impact Statement/Section 4(f) Evaluation

Submitted pursuant to Title 42 USC 4322(2)(c), Title 49 USC 303, 23 CFR 774, 23 CFR 771, and the Judgment and Partial Injunction order of the United States District Court for the District of Hawaiʻi in Honolulu Traffic.com et al. vs. Federal Transit Administration et al. Civ. No. 11-00307 AWT.

The FTA may issue a single Final Supplemental Environmental Impact Statement/Section 4(f) Evaluation and Record of Decision document pursuant to Pub. L. 112-141, 126 Stat. 405, Section 1319(b) unless the FTA determines statutory criteria or practicability considerations preclude issuance of the combined document pursuant to Section 1319. In that case, FTA would issue a Final Supplemental Environmental Impact Statement followed by a supplement to the Record of Decision, as needed.

by the

U.S. Department of Transportation Federal Transit Administration

Honolulu Authority for Rapid Transportation

MAY 28 2013
Date of Approval

Regional Administrator
U.S. Department of Transportation
Federal Transit Administration

5/28/13
Date of Approval

Executive Director and CEO
Honolulu Authority for Rapid Transportation
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Abstract

This Draft Supplemental Environmental Impact Statement/Section 4(f) Evaluation [EIS/4(f)] for the Honolulu Rail Transit Project is a limited-scope document that evaluates the prudence and feasibility of the Beretania Street Tunnel Alternative and reconsiders the no use determination for Mother Waldron Neighborhood Park. This Draft Supplemental EIS/4(f) was prepared to address the Judgment and Partial Injunction order of the United States District Court for the District of Hawai'i in *HonoluluTraffic.com et al. vs. Federal Transit Administration et al.* The Judgment, filed December 27, 2012 requires the FTA and the City and County of Honolulu to comply with the Court's Summary Judgment Order dated November 1, 2012. The Federal Transit Administration is the lead federal agency and the Honolulu Authority for Rapid Transportation is the project sponsor for the 20-mile rail transit project that extends from Kapolei to Ala Moana Center, via the Honolulu waterfront.

Comments concerning the Section 4(f) evaluation of the Beretania Street Tunnel Alternative and Mother Waldron Neighborhood Park may be returned during the 45-day Draft Supplemental EIS/4(f) review period to Mr. Matley or Mr. Grabauskas at the addresses on the prior page. Substantive comments received during the 45-day review period will be addressed in the Final Supplemental EIS/4(f). A disk containing the Draft Supplemental EIS/4(f) is available at no cost. The document is available on the project website at honolulutransit.org and may be reviewed at the following locations:

City and County of Honolulu Municipal Library
All O'ahu public libraries
Honolulu Authority for Rapid Transportation, 1099 Alakea Street, Suite 1700

Printed copies of the document are available for purchase.

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Appendixes (on enclosed compact disk)

Acronyms and Abbreviations

ACHP	Advisory Council on Historic Preservation
CFR	Code of Federal Regulations
City	City and County of Honolulu
Court	United States District Court for the District of Hawai‘i
dBA	A-weighted decibels
DPP	City and County of Honolulu Department of Planning and Permitting
DPR	City and County of Honolulu Department of Parks and Recreation
EIS	environmental impact statement
EIS/4(f)	Environmental Impact Statement/Section 4(f) Evaluation
‘Ewa	toward the ‘Ewa plain, generally west
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
HART	Honolulu Authority for Rapid Transportation
HCDA	Hawai‘i Community Development Authority
HECO	Hawaiian Electric Company
Koko Head	toward Koko Head, generally east
Leq	equivalent sound level
Leq(h)	hourly-equivalent sound level
Makai	toward the ocean
Mauka	toward the mountains
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places
PA	Programmatic Agreement
PUC	Primary Urban Center
ROD	Record of Decision
SCC	standard cost categories
SHPD	State Historic Preservation Division
SHPO	State Historic Preservation Officer
TBM	tunnel boring machine
TCP	Traditional Cultural Property
TPSS	Traction Power Substation
VdB	vibration decibels
YOE	year of expenditure

Executive Summary

In January 2011, the Federal Transit Administration (FTA) issued a Record of Decision (ROD) for the Honolulu High-Capacity Transit Corridor Project (now called the Honolulu Rail Transit Project), which is a 20-mile rail transit project that extends from Kapolei to Ala Moana Center, via the Honolulu waterfront. This alternative is referred to as the Project. The Project would use four Section 4(f) properties: OR&L Office/Document Storage Building and Terminal Building property, Chinatown Historic District, the Dillingham Transportation Building, and the HECO Downtown Plant/Leslie A. Hicks Building. All four are historic properties.

This Draft Supplemental Environmental Impact Statement/Section 4(f) Evaluation [EIS/4(f)] was prepared to address the Judgment and Partial Injunction order (Judgment) of the United States District Court for the District of Hawai'i (Court) in *HonoluluTraffic.com et al. vs. Federal Transit Administration et al.* The Judgment, filed December 27, 2012 requires the FTA and the City and County of Honolulu (City) to comply with the Court's Summary Judgment Order dated November 1, 2012. The Court's Summary Judgment Order granted the Motions for Summary Judgment of the FTA and the City with regard to the Plaintiffs' claims under the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA). The Court granted the Plaintiffs' Motion for Summary Judgment with regard to three claims under Section 4(f) of the Department of Transportation Act [Section 4(f)]. The Summary Judgment Order concluded that the FTA and the City were required to conduct additional analyses regarding (1) whether the Beretania Street Tunnel Alternative was a feasible and prudent avoidance alternative under Section 4(f), (2) whether the Project would "use" Mother Waldron Neighborhood Park under Section 4(f), and (3) the identification of traditional cultural properties (TCP) and complete a Section 4(f) analysis for any TCPs identified as eligible for the National Register of Historic Places.

This Draft Supplemental EIS/4(f) includes the analysis of the Beretania Street Tunnel Alternative required by the Judgment and the additional analysis of whether the Project will have a constructive use of Mother Waldron Neighborhood Park under Section 4(f). A separate evaluation is underway related to the identification of previously unidentified potential TCPs, as required in the Project's Section 106 Programmatic Agreement. Any identified TCPs would be evaluated in accordance with 36 CFR 800 and any use would be documented in a supplement to the Project's Record of Decision. The scope of this Draft Supplemental EIS/4(f) is limited to the evaluation and findings under Section 4(f) of the Department of Transportation Act related to the prudence and feasibility of the Beretania Street Tunnel Alternative and the Section 4(f) analysis of Mother Waldron Neighborhood Park.

The Section 4(f) regulations (23 CFR 774.17) indicate that, with certain identified exceptions, a "use" of Section 4(f) property occurs: (1) When land is permanently incorporated into a transportation facility; (2) When there is a temporary occupancy of land that is adverse in terms of the statute's preservation purpose as determined by the criteria in Section 774.13(d); or (3) When there is a constructive use of a Section 4(f) property as determined by the criteria in Section 774.15.

The Beretania Street Tunnel Alternative, as defined in the Honolulu High-Capacity Transit Corridor Project Alternatives Analysis (DTS 2006), would connect to the Dillingham Boulevard Alignment ʻEwa (toward the ʻEwa plain, generally west) of Kaʻaahi Street, where it would transition from an aerial alignment to a 5,980-foot tunnel. To transition from an aerial structure to a tunnel, the aerial guideway would descend to ground level, then into a trench, and finally into a tunnel portal. The tunnel would cross under the OR&L Office/Document Storage Building and Terminal Building property, Aʻala Park, and Nuʻuanu Stream, then follow under Beretania Street past Punchbowl Street, where it would transition back to an aerial structure from the portal through a trench section along the mauka edge of the municipal parking structure and preschool to an aerial structure over the corner of the municipal parking structure.

As an aerial structure, the alignment would cross Alapai Street and transition to King Street through the recently constructed Alapai Transit Center then follow King Street to University Avenue and turn mauka crossing over H-1 to the University of Hawaiʻi at Mānoa (UH Mānoa) lower campus.

The Beretania Street Tunnel Alternative is feasible, but it is not prudent because of its extraordinary cost, additional Section 4(f) impacts, and other factors such as long-term construction impacts. It is adjacent to 7 parks, 4 National Register of Historic Places (NRHP)-listed properties, 2 properties determined NRHP-eligible, and an additional 42 historic resources that are in-period and treated as eligible for nomination to the NRHP. The Beretania Street Tunnel Alternative would use two historic properties already listed on the NRHP and two NRHP-eligible properties. These are the OR&L parcel (including the NRHP-listed OR&L Terminal Building and Office/Document Storage Building and the NRHP-eligible former filling station), the NRHP-listed McKinley High School, and the NRHP-eligible King Florist Building. Thus, the Beretania Street Tunnel Alternative is not a Section 4(f) avoidance alternative because it does not avoid the use of Section 4(f) properties.

The Beretania Street Tunnel Alternative is imprudent; as a result, the least overall harm standard does not apply. Nonetheless, to further consider differences between the Project and the Beretania Street Tunnel Alternative, the relative severity of each alignment's impact has been compared from a least overall harm perspective. The Project would have the Least Overall Harm compared to the Beretania Street Tunnel Alternative.

Mother Waldron Neighborhood Park and Playground is a 3.4-acre urban park bounded by Coral, Halekauwila, Cooke, and Pohukaina Streets. Halekauwila

Street was constructed through the mauka (toward the mountains) portion of the historic playground in the early 1990s and an elderly housing project has been constructed on this former playground property. The park and playground is protected under Section 4(f) as both a public park and as a historic site. The Project will be constructed outside the boundaries of the park, along Halekauwila Street (the mauka side of the park). Project pillars and the aerial guideway will be visible from within the park, especially on the mauka side, where a playground and several benches are located.

This Draft Supplemental EIS/4(f) evaluates whether the Project's impacts will result in constructive use of the park's activities, features, and attributes that qualify the park for Section 4(f) protection. A constructive use would occur if the Project's proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired. In general terms, this means that the value of the resource, in terms of its Section 4(f) purpose and significance, will be meaningfully reduced or lost.

The protected activities, features, and attributes that qualify Mother Waldron Neighborhood Park for protection include both its recreational use and its historic significance. Recreational uses include walking and jogging, use by organized sporting events, playing basketball, play-structure use, and bicycling. The Project will not substantially impair any of these uses.

The protected activities, features, and attributes that qualify Mother Waldron Neighborhood Park for protection as a historic site are its historical development and use as a playground and its remaining architectural and landscape design features, including an Art Moderne comfort station and some remaining Art Deco design elements and layout. The mauka (Halekauwila Street) portion of the playground lacks historic integrity. When Halekauwila Street was realigned in the early 1990s, the playground was reduced and the mauka boundary wall was reconstructed in a modified configuration approximately 90 feet makai (toward the ocean) of its original location, substantially reducing the area of the historic playground by approximately 12,700 square feet. The original recreational features, perimeter wall, and benches were removed, along with a convex curved entrance at the original playground's Koko Head (toward Koko Head, generally east) corner. The current perimeter wall and benches are not contributing elements to the historic site and, therefore, are not subject to protection as historic elements of the park.

The Project will not alter primary views of the remaining contributing historic elements within the park, as the primary views of those elements are all from within the park and the guideway is located entirely outside the park. While the Project will have significant effects on views of and over the park from the apartment building across the street, this view is not a contributing element to the significant activities, features, and attributes of the park that qualifies it for protection under Section 4(f). The Project will not use Mother Waldron Neighborhood Park and Playground under Section 4(f).

In response to public comments, alternatives to avoid Mother Waldron Neighborhood Park were considered. Alternatives makai of the park were rejected because a shift to Pohukaina Street would still border the park and a shift to Auahi Street would not be able to transition back to the terminal station at Ala Moana Center as a result of recent development of the Ward Village Shops. An alignment further mauka along Queen Street would use two Section 4(f) properties and require additional displacements.

1 Background, Purpose and Need

1.1 Purpose and Scope of this Draft Supplemental Environmental Impact Statement/Section 4(f) Evaluation

The Federal Transit Administration (FTA) and City and County of Honolulu (City) prepared and distributed a Final Environmental Impact Statement (EIS)/Section 4(f) Evaluation for the Honolulu High-Capacity Transit Corridor Project (now called the Honolulu Rail Transit Project) in June 2010. The Final EIS identified environmental impacts and mitigations for the Project, including the use of properties protected under Section 4(f) of the Department of Transportation Act. In January 2011, the FTA issued a Record of Decision (ROD) for the Project, selecting a 20-mile alternative that extends from Kapolei to Ala Moana Center, via Honolulu's waterfront. The Honolulu Authority for Rapid Transportation (HART) is the agency within the City with jurisdiction to oversee the planning, construction, operation, and extension of the rail system. The FTA is the lead federal agency and HART is the project sponsor.

This Draft Supplemental Environmental Impact Statement/Section 4(f) Evaluation [EIS/4(f)] has been prepared to address the Judgment and Partial Injunction order (Judgment) of the United States District Court for the District of Hawai'i (Court) in *HonoluluTraffic.com et al. vs. Federal Transit Administration et al.* (Appendix A). The Judgment, filed December 27, 2012 requires the FTA and the City to comply with the Court's Summary Judgment Order dated November 1, 2012 (Appendix B). The Court's Summary Judgment Order granted the Motions for Summary Judgment of the FTA and the City with regard to the Plaintiffs' claims under the National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA), as well as under Section 4(f) of the Department of Transportation Act [Section 4(f)], with the exception of three claims. The Summary Judgment Order concluded that the FTA and the City were required to conduct additional analyses regarding (1) whether the Beretania Street Tunnel Alternative was feasible and prudent avoidance alternative under Section 4(f), (2) if the Project would "use" Mother Waldron Neighborhood Park under Section 4(f), and (3) to complete the identification of traditional cultural properties (TCPs) and, for any TCPs identified, complete a Section 4(f) Analysis.

The Summary Judgment Order required the FTA and the City to prepare a Supplemental EIS with regard to the analysis of whether the Beretania Street Tunnel Alternative was feasible and prudent (Summary Judgment Order, page 27). The Summary Judgment Order stated that the Final EIS must be supplemented with regard to Mother Waldron Neighborhood Park to the extent that the analysis of the use of Mother Waldron Neighborhood Park affects the analysis or conclusions of the Final EIS (Summary Judgment Order, page 21).

This Draft Supplemental EIS/4(f) includes the analysis of the Beretania Street Tunnel Alternative required by the Judgment. It also includes the additional

analysis of whether the Project will have a constructive use of Mother Waldron Neighborhood Park under Section 4(f).

In addition to this Draft Supplemental EIS/4(f), the FTA and the City are completing an identification of previously unidentified above-ground TCPs within Phase 4 of the project corridor. The identification and evaluation of TCPs is complete for Phases 1 through 3 of the Project. In Phases 1 through 3, the FTA identified no TCPs that would be adversely affected by the Project and no use of TCPs would occur (HART 2012a, HART 2012b, HART 2012c, HART 2012e). Reports were available for public review. The State Historic Preservation Officer (SHPO) concurred with the determination (SHPD 2012). The TCP study for Phase 4 was distributed to consulting parties in April 2013. Preliminary analysis indicates that none of the evaluated resources are TCPs eligible for nomination to the National Register of Historic Places (NRHP).

This supplement does not alter or withdraw any approvals or decisions made under other regulations or authorities, including, but not limited to, the Hawai‘i Environmental Policy Act (Hawai‘i Revised Statutes Chapter 343), Section 106 of the National Historic Preservation Act, Section 7 of the Endangered Species Act, Sections 401, 402, and 404 of the Clean Water Act, or Sections 9 and 10 of the Rivers and Harbors Act.

1.2 Section 4(f) Background

Section 4(f) of the Department of Transportation Act of 1966 (49 USC 303), in pertinent paragraphs, provides: (c) Approval of programs and projects. Subject to subsection (d), the Secretary may approve a transportation program or project (other than any project for a park road or parkway under Section 204 of title 23) requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, State, or local significance, or land of an historic site of national, State, or local significance (as determined by the Federal, State, or local officials having jurisdiction over the park, area, refuge, or site) only if:

> (1) there is no prudent and feasible alternative to using that land; and
>
> (2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

FTA has developed and promulgated joint regulations with the Federal Highway Administration (FHWA) implementing and interpreting Section 4(f) (23 CFR 774). In addition to the Section 4(f) regulations, FTA has adopted FHWA’s Section 4(f) Policy Paper (USDOT 2012) to guide Section 4(f) analyses. The analysis in this Draft Supplemental EIS/4(f) has been conducted in accordance with 23 CFR 774 and the Section 4(f) Policy Paper.

1.2.1 Section 4(f) Uses

The Section 4(f) regulations (23 CFR 774.17) indicate that, with certain identified exceptions, a "use" of Section 4(f) property occurs:

> (1) When land is permanently incorporated into a transportation facility;
>
> (2) When there is a temporary occupancy of land that is adverse in terms of the statute's preservation purpose as determined by the criteria in Section 774.13(d); or
>
> (3) When there is a constructive use of a Section 4(f) property as determined by the criteria in Section 774.15.

Constructive Use

A constructive use occurs when the transportation project does not incorporate land from a Section 4(f) property, but the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished [23 CFR 774.15(a)].

The FTA has determined that a constructive use occurs when:

- The projected noise level increase attributable to the project substantially interferes with the use and enjoyment of a noise-sensitive facility of a property protected by Section 4(f), such as
  - Hearing the performances at an outdoor amphitheater
  - Sleeping in the sleeping area of a campground
  - Enjoyment of a historic site where a quiet setting is a generally recognized feature or attribute of the site's significance
  - Enjoyment of an urban park where serenity and quiet are significant attributes
  - Viewing wildlife in an area of a wildlife and waterfowl refuge intended for such viewing
- The proximity of the proposed project substantially impairs esthetic features or attributes of a property protected by Section 4(f), where such features or attributes are considered important contributing elements to the value of the property. Examples of substantial impairment to visual or esthetic qualities would be the location of a proposed transportation facility in such proximity that it obstructs or eliminates the primary views of an architecturally significant historic building, or substantially detracts from the setting of a Section 4(f) property which derives its value in substantial part due to its setting;

- The project results in a restriction of access which substantially diminishes the utility of a significant publicly owned park, recreation area, or a historic site;
- The vibration impact from construction or operation of the project substantially impairs the use of a Section 4(f) property; or
- The ecological intrusion of the project substantially diminishes the value of wildlife habitat in a wildlife and waterfowl refuge adjacent to the project.

The FTA has determined that a constructive use does not occur when:

- Compliance with the requirements of 36 CFR 800.5 for proximity impacts of the proposed action, on a site listed on or eligible for the National Register, results in an agreement of "no historic properties affected" or "no adverse effect";
- The impact of projected traffic noise levels of the proposed highway project on a noise-sensitive activity do not exceed the FHWA noise abatement criteria as contained in Table 1 in part 23 CFR 772, or the projected operational noise levels of the proposed transit project do not exceed the noise impact criteria for a Section 4(f) activity in the FTA guidelines for transit noise and vibration impact assessment;
- The projected noise levels exceed the relevant threshold in paragraph (f)(2) of [23 CFR 774.15] because of high existing noise, but the increase in the projected noise levels if the proposed project is constructed, when compared with the projected noise levels if the project is not built, is barely perceptible (3 dBA or less);
- There are proximity impacts to a Section 4(f) property, but a governmental agency's right-of-way acquisition or adoption of project location, or the Administration's approval of a final environmental document, established the location for the proposed transportation project before the designation, establishment, or change in the significance of the property. However, if it is reasonably foreseeable that a property would qualify as eligible for the National Register prior to the start of construction, then the property should be treated as a historic site for the purposes of this section; or
- Overall (combined) proximity impacts caused by a proposed project do not substantially impair the activities, features, or attributes that qualify a property for protection under Section 4(f);
- Proximity impacts will be mitigated to a condition equivalent to, or better than, that which would occur if the project were not built, as determined after consultation with the official(s) with jurisdiction;
- Change in accessibility will not substantially diminish the utilization of the Section 4(f) property; or
- Vibration levels from project construction activities are mitigated, through advance planning and monitoring of the activities, to levels that do not cause

a substantial impairment of protected activities, features, or attributes of the Section 4(f) property.

The Section 4(f) Policy Paper (USDOT 2012) provides additional guidance on constructive use. Constructive use occurs when the proximity impacts of a project on an adjacent or nearby Section 4(f) property, after incorporation of impact mitigation, are so severe that the activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs when the protected activities, features, or attributes of the Section 4(f) property are substantially diminished. As a general matter, this means that the value of the resource, in terms of its Section 4(f) purpose and significance, will be meaningfully reduced or lost. The degree of impact and impairment must be determined in consultation with the officials with jurisdiction in accordance with 23 CFR 774.15(d)(3). In those situations where a potential constructive use can be reduced below a substantial impairment by the inclusion of mitigation measures, there will be no constructive use and Section 4(f) will not apply. If there is no substantial impairment, notwithstanding an adverse effect determination (under Section 106), there is no constructive use and Section 4(f) does not apply.

1.2.2 Prudent and Feasible Avoidance Alternatives

If an alternative would use a Section 4(f) resource and the use is not *de minimis*, FTA can approve that alternative only by determining that (1) there is no prudent and feasible avoidance alternative, and (2) the project includes all possible planning to minimize harm resulting from the use. A *de minimis* impact is one that, after taking into account any measures to minimize harm (such as avoidance, minimization, mitigation or enhancement measures), results in either:

- A Section 106 finding of no adverse effect or no historic properties affected on a historic property; or
- A determination that the project would not adversely affect the activities, features, or attributes qualifying a park, recreation area, or refuge for protection under Section 4(f).

When the use is not *de minimis*, the first step in meeting the requirements for approval is to develop and consider avoidance alternatives.

An avoidance alternative is one that completely avoids the use of Section 4(f) resources. Per the Section 4(f) Policy Paper (USDOT 2012), "[A] project alternative that avoids one Section 4(f) property by using another Section 4(f) property is not an avoidance alternative." An avoidance alternative must first be evaluated to determine whether it is prudent and feasible. FTA Section 4(f) regulations list a series of factors to consider in determining whether an alternative is prudent and feasible. A feasible and prudent avoidance alternative is defined in 23 CFR 774.17 as:

(1) A feasible and prudent avoidance alternative avoids using Section 4(f) property and does not cause other severe problems of magnitude that substantially outweighs the importance of protecting the Section 4(f) property. In assessing the importance of protecting the Section 4(f) property, it is appropriate to consider the relative value of the resource to the preservation purpose of the statute.

(2) An alternative is not feasible if it cannot be built as a matter of sound engineering judgment.

(3) An alternative is not prudent if:

(i) It compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;

(ii) It results in unacceptable safety or operational problems;

(iii) After reasonable mitigation, it still causes:

(A) Severe social, economic, or environmental impacts;

(B) Severe disruption to established communities;

(C) Severe disproportionate impacts to minority or low income populations; or

(D) Severe impacts to environmental resources protected under other Federal statutes;

(iv) It results in additional construction, maintenance, or operational costs of an extraordinary magnitude;

(v) It causes other unique problems or unusual factors; or

(vi) It involves multiple factors in paragraphs (3)(i) through (3)(v) of this definition, that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

1.2.3 Least Overall Harm

If there is no feasible and prudent Section 4(f) avoidance alternative, FTA may approve only the alternative that causes the least overall harm as defined in 23 CFR 774.3(c)(1) as the alternative that:

(1) Causes the least overall harm in light of the statute's preservation purpose. The least overall harm is determined by balancing the following factors as applicable:

i) The ability to mitigate adverse impacts of each Section 4(f) property (including any measures that result in benefits to the property);

ii) The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection;

iii) The relative significance of each Section 4(f) property;

iv) The views of the official(s) with jurisdiction over each Section 4(f) property;

v) The degree to which each alternative meets the purpose and need for the project;

vi) After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f); and

vii) Substantial differences in costs among the alternatives.

(2) The alternative selected must include all possible planning, as defined in 23 CFR 774.17, to minimize harm to Section 4(f) property.

A least overall harm analysis balances these factors to eliminate the alternative(s) that, on balance, present the greatest harm in light of the Section 4(f) statute's preservationist perspective. Many of the factors included in the least overall harm standard duplicate the factors in the prudence test.

For more information about Section 4(f) requirements, see the FHWA Section 4(f) regulations in 23 CFR 774; the FHWA Section 4(f) Policy Paper (FHWA 2012); and the FHWA Guidance for Determining *de minimis* Impacts to Section 4(f) Resources (FHWA 2005a).

1.3 Environmental Review Process

This Draft Supplemental EIS/4(f) is being distributed for public review and comment prior to the issuance of a Final Supplemental EIS/4(f) and any required supplement to the Record of Decision. Any comments on this Draft Supplemental EIS/4(f) should be limited to the scope of analysis of the Draft Supplemental EIS/4(f).

All substantive comments on the content of this Draft Supplemental EIS/4(f) will be addressed in the Final Supplemental EIS/4(f).

The FTA may issue a single Final Supplemental EIS/4(f) and Record of Decision document pursuant to Public Law 112-141, 126 Statute 405, Section 1319(b) unless the FTA determines statutory criteria or practicability considerations preclude issuance of the combined document pursuant to Section 1319. In that case, FTA would issue a Final Supplemental Environmental Impact Statement followed by a supplement to the Record of Decision, as needed.

1.4 Purpose and Need

The Purpose and Need for the Project is included in the Final EIS/4(f) and is repeated here for the convenience of the reader.

1.4.1 Purpose of the Project

The purpose of the Honolulu [Rail Transit] Project is to provide high-capacity rapid transit in the highly congested east-west transportation corridor between Kapolei and UH Mānoa, as specified in the *O'ahu Regional Transportation Plan 2030* (ORTP) (O'ahuMPO 2007). The project is intended to provide faster, more reliable public transportation service in the study corridor than can be achieved with buses operating in congested mixed-flow traffic, to provide reliable mobility in areas of the study corridor where people of limited income and an aging population live, and to serve rapidly developing areas of the study corridor. The project also will provide additional transit capacity, an alternative to private automobile travel, and improve transit links within the study corridor. Implementation of the project, in conjunction with other improvements included in the ORTP, will moderate anticipated traffic congestion in the study corridor. The project also supports the goals of the Honolulu General Plan and the ORTP by serving areas designated for urban growth.

1.4.2 Need for Transit Improvements

There are several needs for transit improvements in the study corridor. These needs are the basis for the following goals:

- Improve corridor mobility
- Improve corridor travel reliability
- Improve access to planned development to support City policy to develop a second urban center
- Improve transportation equity

Improve Corridor Mobility

Motorists and transit users experience substantial traffic congestion and delay at most times of the day, both on weekdays and on weekends. Average weekday peak-period speeds on the H-1 Freeway are currently less than 20 mph in many places and will degrade even further by 2030. Transit vehicles are caught in the same congestion. In 2007, travelers on O‘ahu’s roadways experienced 74,000 vehicle hours of delay on a typical weekday, a measure of how much time is lost daily by travelers stuck in traffic. This measure of delay is projected to increase to 107,000 daily vehicle hours of delay by 2030, assuming implementation of all planned improvements listed in the ORTP (except for a fixed-guideway system). Without these improvements, the ORTP indicates that daily vehicle hours of delay would increase to 154,000 vehicle hours.

Currently, motorists traveling from West O‘ahu to Downtown experience highly congested traffic during the a.m. peak period. By 2030, after including all the planned roadway improvements in the ORTP, the level of congestion and travel time are projected to increase further. Average bus speeds in the study corridor have been decreasing steadily as congestion has increased. TheBus travel times are projected to increase through 2030. Within the urban core, most major arterial streets will experience increasing peak-period congestion, including Ala Moana Boulevard, Dillingham Boulevard, Kalākaua Avenue, Kapi‘olani Boulevard, King Street, and Nimitz Highway. Expansion of the roadway system between Kapolei and UH Mānoa is constrained by physical barriers and by dense urban neighborhoods that abut many existing roadways. Given current and increasing levels of congestion, an alternative method of travel is needed within the study corridor independent of current and projected highway congestion.

Improve Corridor Travel Reliability

As roadways become more congested, they become more susceptible to substantial delays caused by such incidents as traffic accidents or heavy rain. Even a single driver unexpectedly braking can have a ripple effect that delays hundreds of cars. Because of the operating conditions in the study corridor, current travel times are not reliable for either transit or automobile trips. Because TheBus primarily operates in mixed traffic, transit users experience the same level of travel time uncertainty as automobile users. To arrive at their destination on time, travelers must allow extra time in their schedules to account for the uncertainty of travel time. During the a.m. peak period, more than one-third of bus service is more than five minutes late. This lack of predictability is inefficient and results in lost productivity or free time. A need exists to provide more reliable transit services.

Improve Access to Planned Development to Support City Policy to Develop a Second Urban Center

Consistent with the Honolulu General Plan, the highest population growth rates for the island are projected in the ʻEwa Development Plan area (comprised of the ʻEwa, ʻEwa Beach, Kapolei, Kalaeloa, Honokai Hale, and Makakilo areas), which is expected to grow by approximately 150 percent between 2000 and 2030. This growth represents nearly 50 percent of the total growth projected for the entire island. The communities of Waiʻanae, Wahiawā, North Shore, Windward Oʻahu, Waimānalo, and East Honolulu will have much lower population growth of up to 23 percent, if infrastructure policies support the planned growth rates in the ʻEwa Development Plan area. Kapolei, which is developing as a "second city" to Downtown, is projected to grow by more than 350 percent, to 55,500 people, the ʻEwa district by more than 100 percent, and Makakilo by nearly 125 percent between 2000 and 2030.

Accessibility to the overall ʻEwa Development Plan area is currently severely impaired by the congested roadway network, which will only get worse in the future. This area is less likely to develop as planned unless it is accessible to Downtown and other parts of Oʻahu; therefore, the ʻEwa Development Plan area needs improved accessibility to support its future planned growth.

Improve Transportation Equity

Equity is about the fair distribution of resources so that no group carries an unfair burden of the negative environmental, social, or economic impacts or receives an unfair share of benefits. Many lower-income and minority workers who commute to work in the PUC Development Plan area live in the corridor outside of the urban core. Transit-dependent households concentrated in the Pearl City, Waipahu, and Makakilo areas [Figure 1-9 of the Final EIS/4(f)] rely on transit availability, such as TheBus, for access to jobs in the PUC Development Plan area. Delay caused by traffic congestion accounts for nearly one-third of the scheduled time for routes between ʻEwa and Waikīkī. Many lower-income workers also rely on transit because of its affordability. These transit-dependent and lower-income workers lack a transportation choice that avoids the delay and schedule uncertainty currently experienced by TheBus. In addition, Downtown median daily parking rates are the highest among U.S. cities, further limiting access to Downtown by lower-income workers. Improvements to transit availability and reliability would serve all transportation system users, including minority and moderate- and low-income populations.

2 Alternatives Considered

2.1 Alternative Evaluation

Chapter 2 of the Final EIS/4(f) documents how alternatives were developed, evaluated, and refined. The full range of alternatives considered is presented in Chapter 2 of the Final EIS/4(f).

During the Alternatives Analysis and preliminary engineering process, many corridors and modal alternatives were considered to identify transportation solutions to meet the project's Purpose and Need. The Beretania Street Tunnel Alternative was considered and eliminated in the Alternatives Analysis. The avoidance of Section 4(f) properties was an important consideration in designing and screening the alternatives that were considered. As a result of this approach, the majority of public parks, recreational properties, and historic properties identified within the study corridor are avoided by the project's design and location.

Section 5.5 of the Final EIS/4(f) evaluated alternatives that avoided the use of individual Section 4(f) resources and measures to minimize harm. As summarized in Section 5.9 of the Final EIS/4(f), no prudent and feasible alternative was identified that will completely avoid Section 4(f) properties. Also, as described in Section 5.8 of the Final EIS/4(f), all of the alternatives would have resulted in use of Section 4(f) properties.

Based on an assessment of the transportation benefits, public comments, and environmental analysis, the Final EIS/4(f) documented that the Airport Alternative would result in the least overall harm to Section 4(f) resources and met the purpose and need for the Project. The Airport Alternative was selected as the Project with the issuance of the Record of Decision on January 18, 2011.

2.2 Description of the Project

The Honolulu Rail Transit Project is an exclusive right-of-way rail project being developed by the FTA and HART. As defined in the ROD, the Project includes the construction and operation of a 20-mile, elevated fixed guideway transit system along the Airport Alignment, extending from East Kapolei to Ala Moana Center (Figure 1). The Project will begin in East Kapolei and follow Kualaka'i Parkway and other future roadways to Farrington Highway. The guideway will follow Farrington Highway Koko Head (toward Koko Head, generally east) and continue along Kamehameha Highway to the vicinity of Aloha Stadium.

The Project will continue along Kamehameha Highway past Aloha Stadium to Nimitz Highway and turn makai onto Aolele Street, Ualena Street, and Waiwai Loop through the Honolulu International Airport to reconnect to Nimitz Highway near Moanalua Stream. From there, the Project continues to the Middle Street

Transit Center, Koko Head along Dillingham Boulevard to the vicinity of Ka‘aahi Street and then turn makai to connect to Nimitz Highway in the vicinity of Iwilei Road.

The Project will follow Nimitz Highway Koko Head to Halekauwila Street and then proceed along Halekauwila Street past Ward Avenue, where it will transition to Queen Street and Kona Street. The guideway will run above Kona Street to Ala Moana Center.

The Project includes 21 stations as well as supporting facilities that include a maintenance and storage facility near Leeward Community College, transit centers, park-and-ride lots, a parking structure, and traction power substations. The project schedule is shown in Figure 2.

2.3 Content of the Final EIS/4(f) being Supplemented

This Draft Supplemental EIS/4(f) supplements Chapter 5 of the Final EIS/4(f) in two areas. First, it reconsiders the Beretania Street Tunnel Alternative, previously dismissed during the Alternatives Analysis, to determine if it would be a feasible and prudent alternative with less overall harm than the Project [Section 3 of this Draft Supplemental EIS/4(f)]. Second, it reconsiders the no-use determination for Mother Waldron Neighborhood Park, taking full account that the Project will have an adverse effect on the park under Section 106 and significant visual effects in the vicinity of the park according to the NEPA finding [Section 4 of this Draft Supplemental EIS/4(f)].

Figure 1. The Project

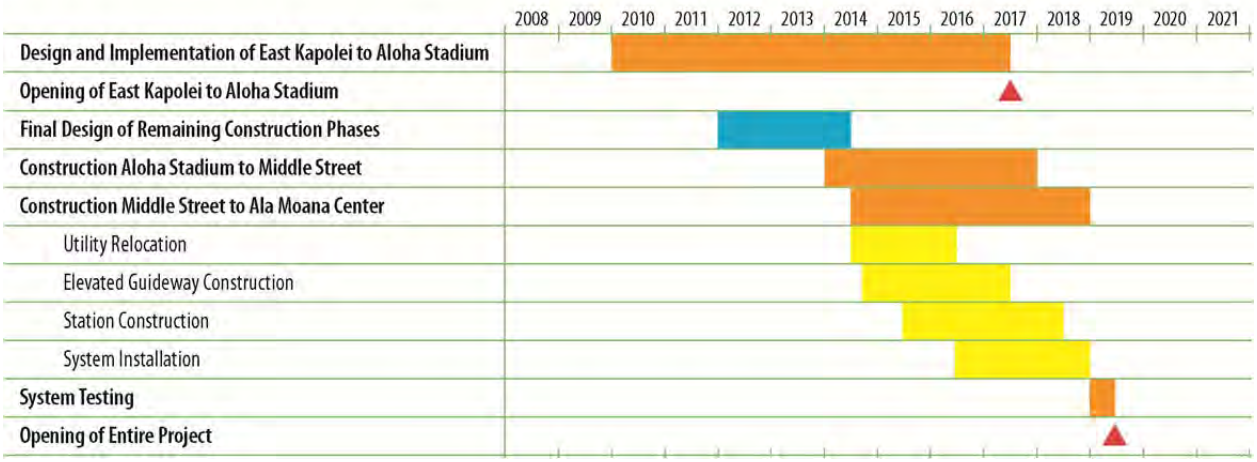


Figure 2. Project Schedule

3 Evaluation of the Beretania Street Tunnel Alternative

The Beretania Street Tunnel Alternative (Figure 3) is being reconsidered to determine if it is a feasible and prudent avoidance alternative or is the alternative that has the least overall harm to Section 4(f) resources in comparison to the Project. The Beretania Street Tunnel Alternative that was previously considered and eliminated during the Alternatives Analysis would avoid direct use of the Chinatown Historic District, Dillingham Transportation Building, and HECO Downtown Plant and Leslie A. Hicks Building. This chapter includes the analysis required by the Summary Judgment Order. The Beretania Street Tunnel Alternative was evaluated for Section 4(f) use according to the regulations and guidance outlined in Section 1.2.1 of this Draft Supplemental EIS/4(f) using the same process and assumptions detailed for the Project in Chapter 5 of the Final EIS/4(f).

3.1 Description of the Beretania Street Tunnel Alternative

The Beretania Street Tunnel Alternative, as defined in the Honolulu High-Capacity Transit Corridor Project Alternatives Analysis (DTS 2006), would connect to the Dillingham Boulevard Alignment ʻEwa (toward the ʻEwa plain, generally west) of Kaʻaahi Street, where it would transition from an aerial alignment to a 5,980-foot tunnel. To transition from an aerial structure to a tunnel, the aerial guideway would descend to ground level, then into a trench, and finally into a tunnel portal. The tunnel would cross under the OR&L Office/Document Storage Building and Terminal Building property, Aʻala Park, and Nuʻuanu Stream then follow under Beretania Street past Punchbowl Street, where it would transition back to an aerial structure from the portal through a trench section along the mauka edge of the municipal parking structure and preschool to an aerial structure over the corner of the municipal parking structure.

As an aerial structure, the alignment would cross Alapai Street and transition to King Street through the recently constructed Alapai Transit Center then follow King Street to University Avenue and turn mauka crossing over H-1 to the University of Hawaiʻi at Mānoa (UH Mānoa) lower campus (Figure 3). The guideway would follow the makai edge of King Street and require right of way at each station because the station platforms would overhang the properties makai of each station. Tunnel stations would be constructed at Kaʻaahi and Fort streets and elevated stations would be constructed at Alapai, Pensacola, Kalākaua, McCully, and Hausten streets, and at UH Mānoa Lower Campus (Figure 4 through Figure 12). These figures identify NRHP-listed properties, eligible properties, and properties assumed to be eligible for the NRHP in the vicinity of the stations as historic. The Beretania Street Tunnel Alternative continues to UH Mānoa because no logical terminus exists prior to this point. The schedule for the Beretania Tunnel Alternative is shown in Figure 13, which extends two years beyond that for the Project (Figure 2).

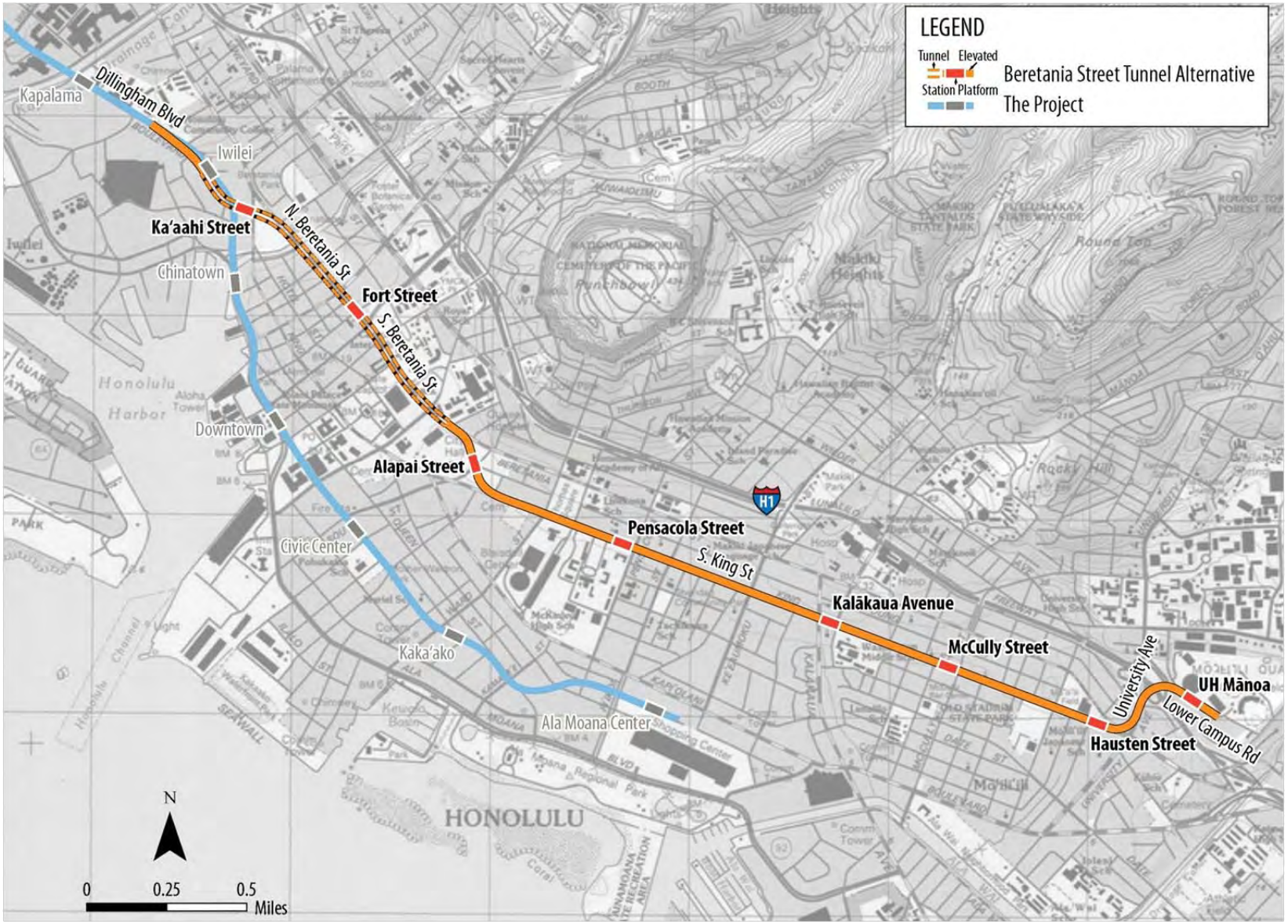


Figure 3. Beretania Street Tunnel Alternative

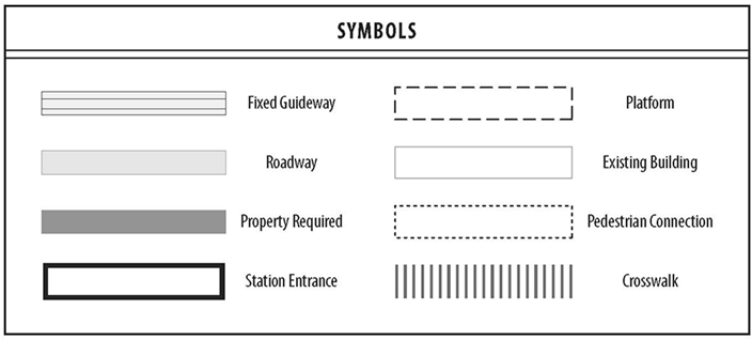


Figure 4. Key to Figure 5 through Figure 12

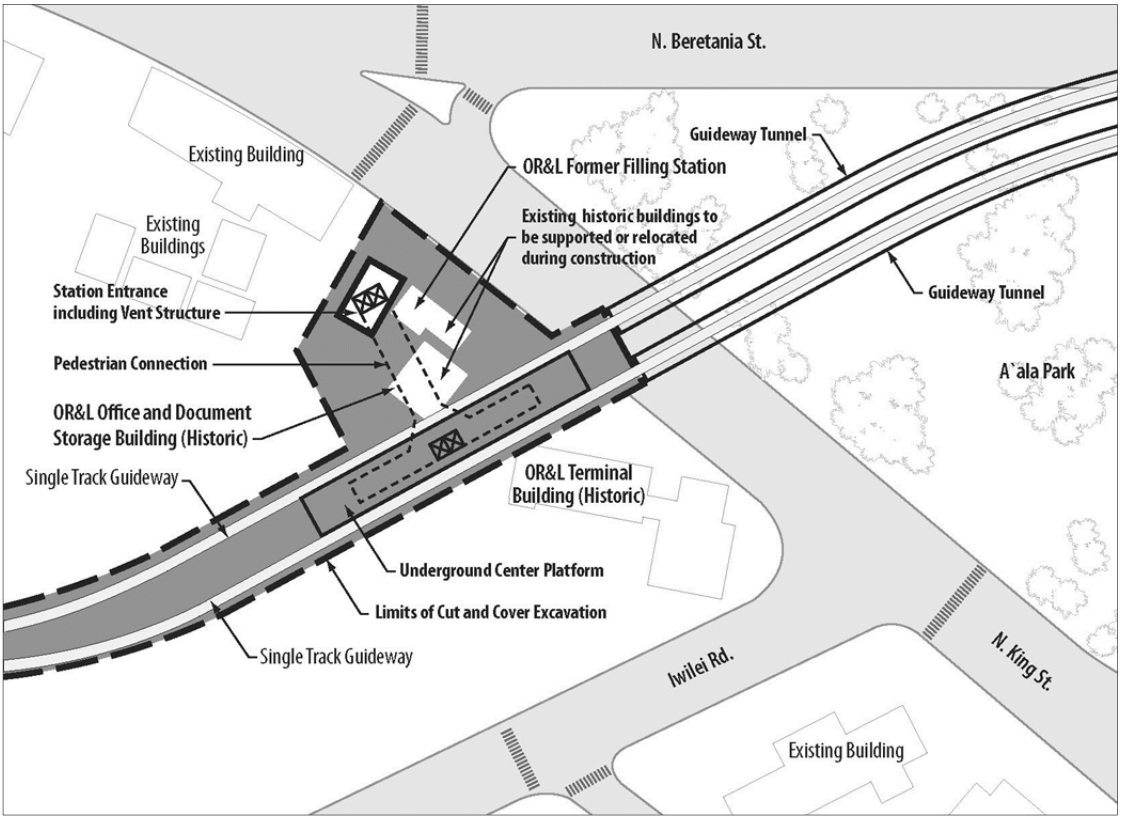


Figure 5. Beretania Street Tunnel Alternative Ka‘aahi Street Station

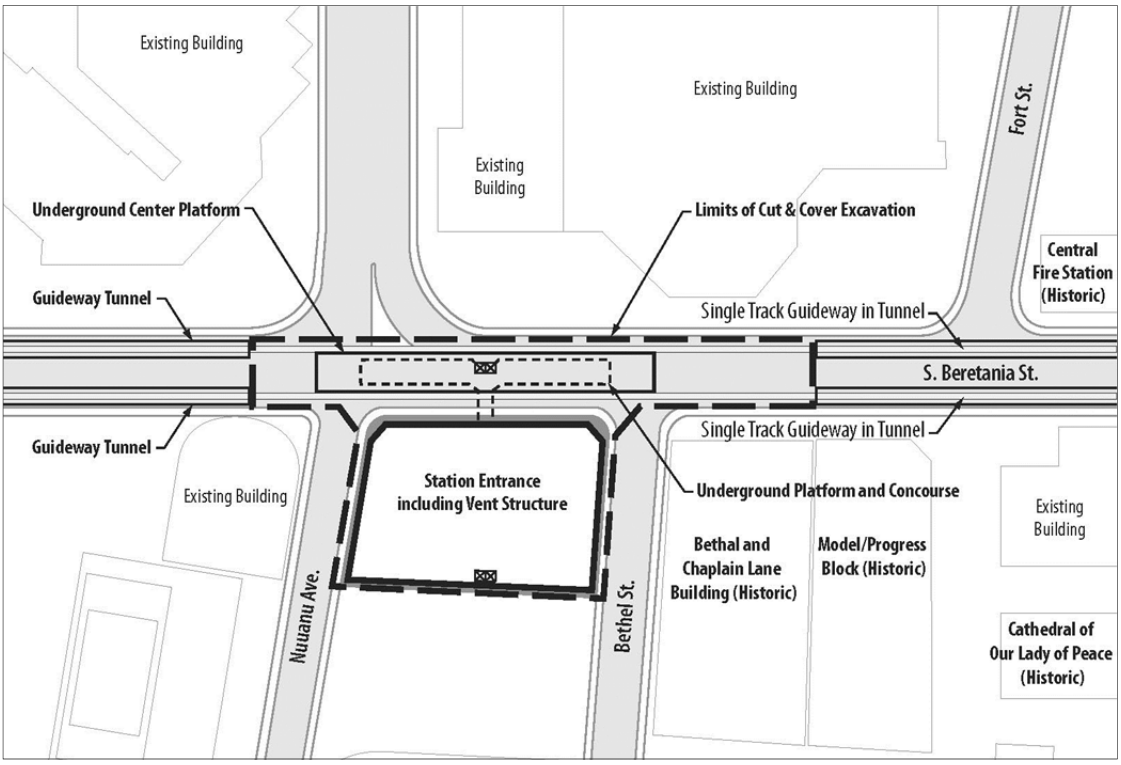


Figure 6. Beretania Street Tunnel Alternative Fort Street Station

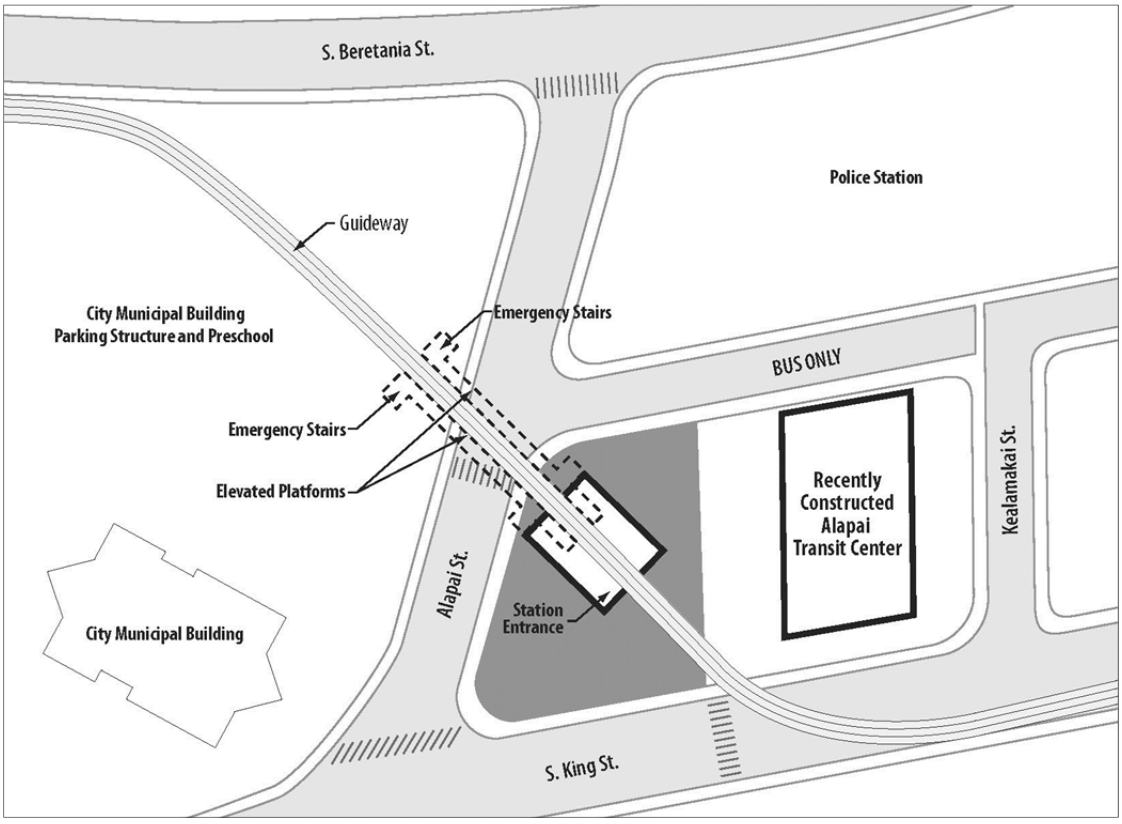


Figure 7. Beretania Street Tunnel Alternative Alapai Street Station

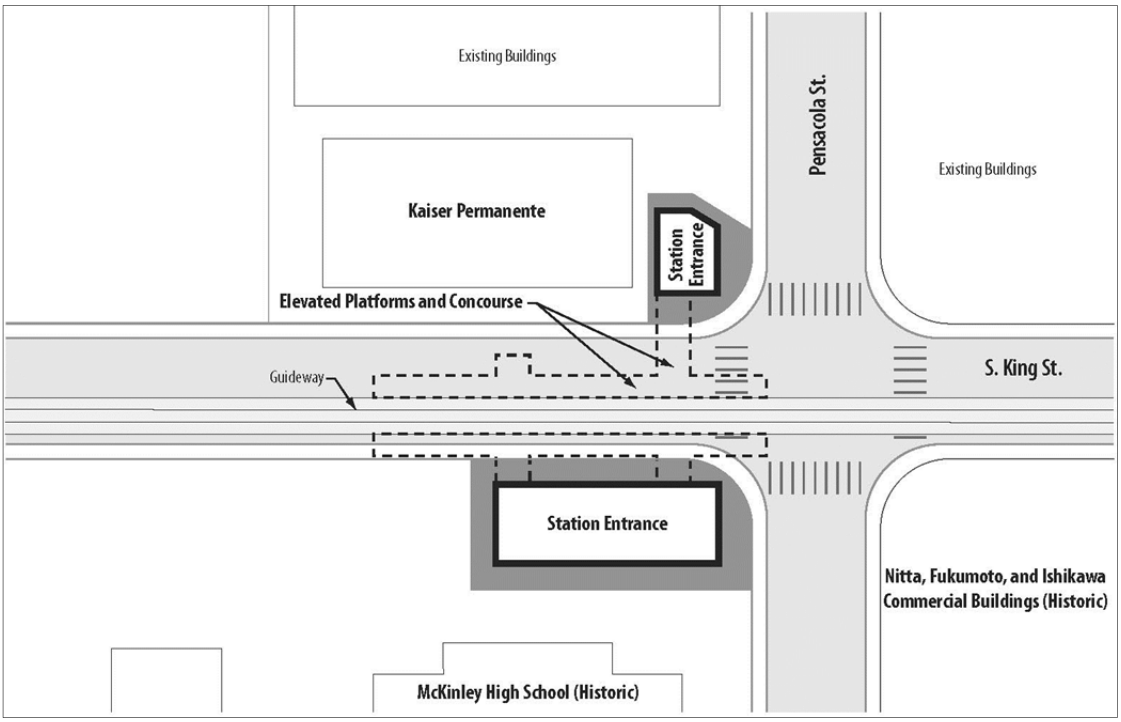


Figure 8. Beretania Street Tunnel Alternative Pensacola Street Station

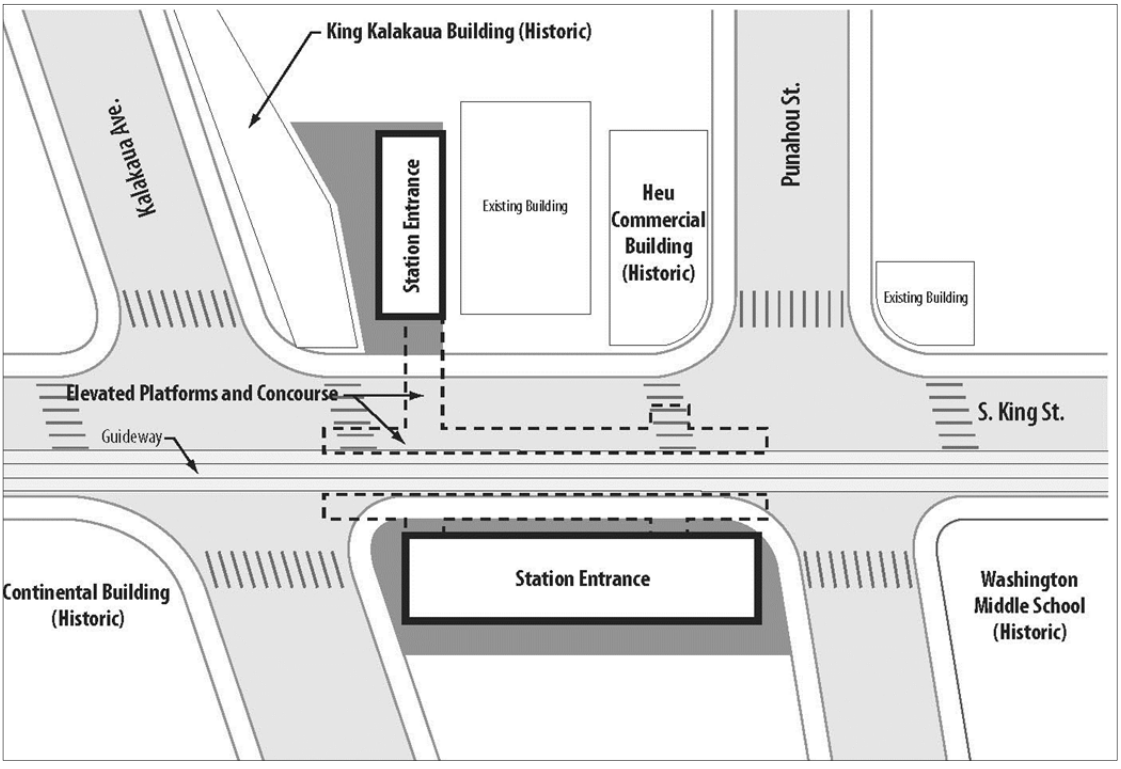


Figure 9. Beretania Street Tunnel Alternative Kalākaua Avenue Station

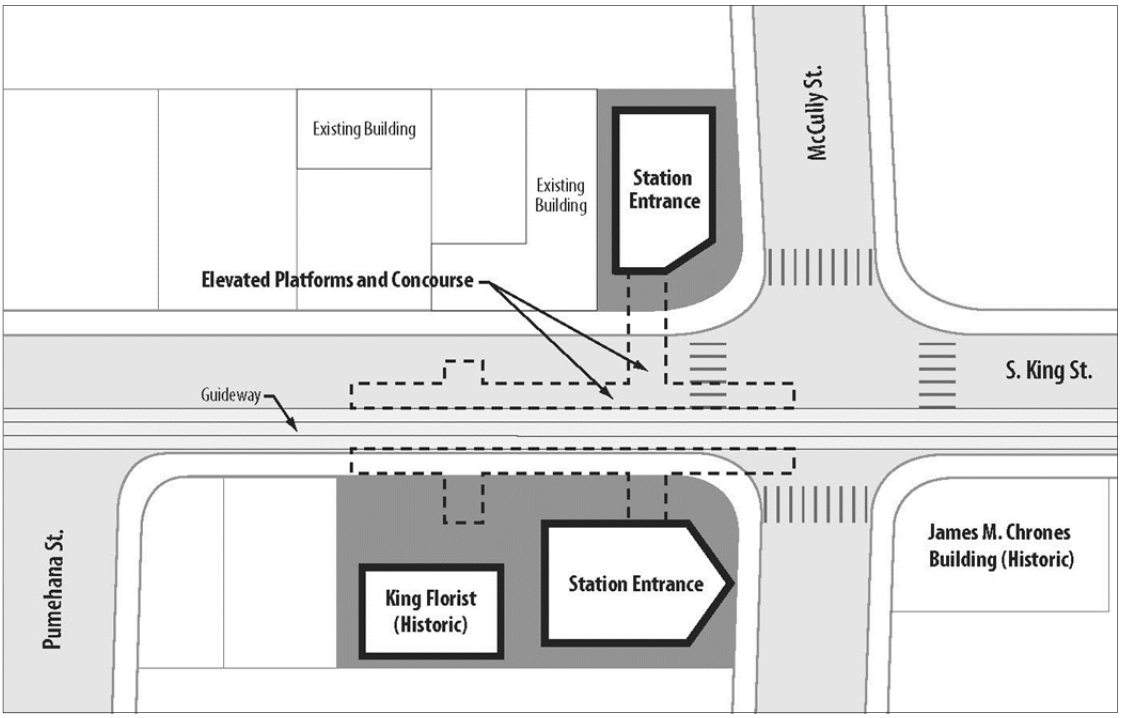


Figure 10. Beretania Street Tunnel Alternative McCully Street Station

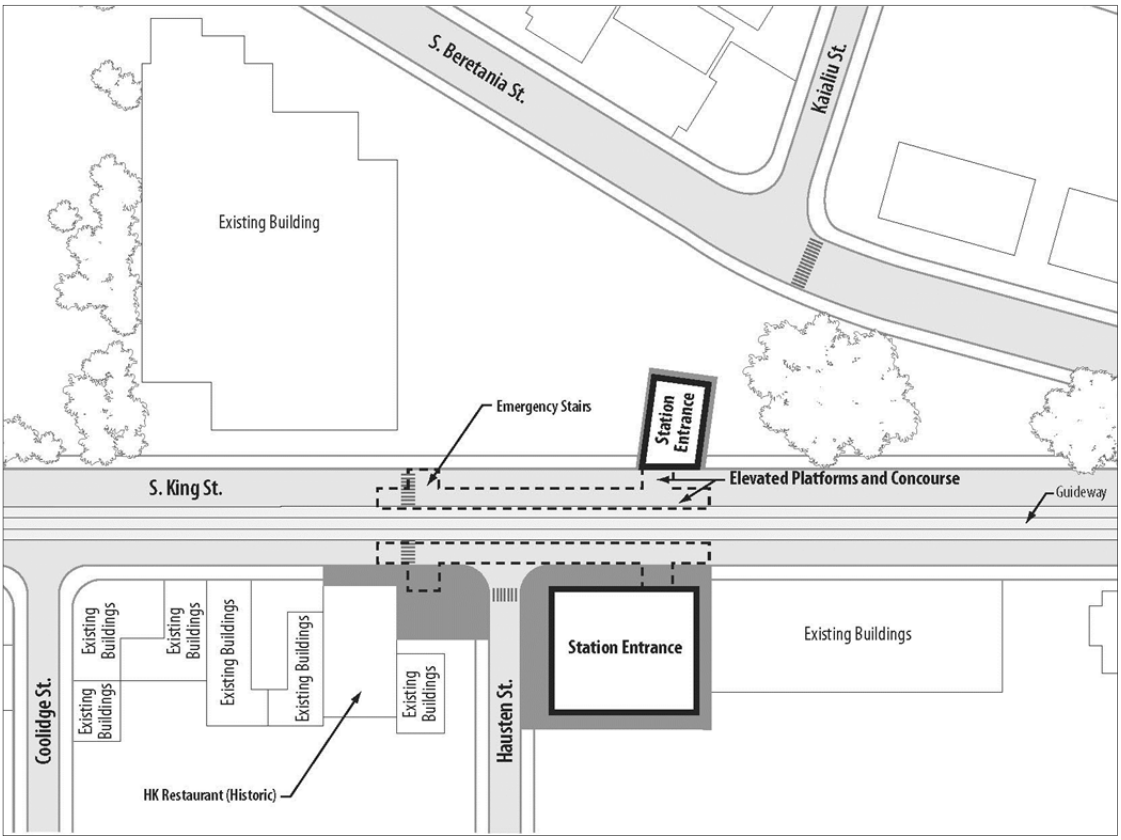


Figure 11. Beretania Street Tunnel Alternative Hausten Street Station

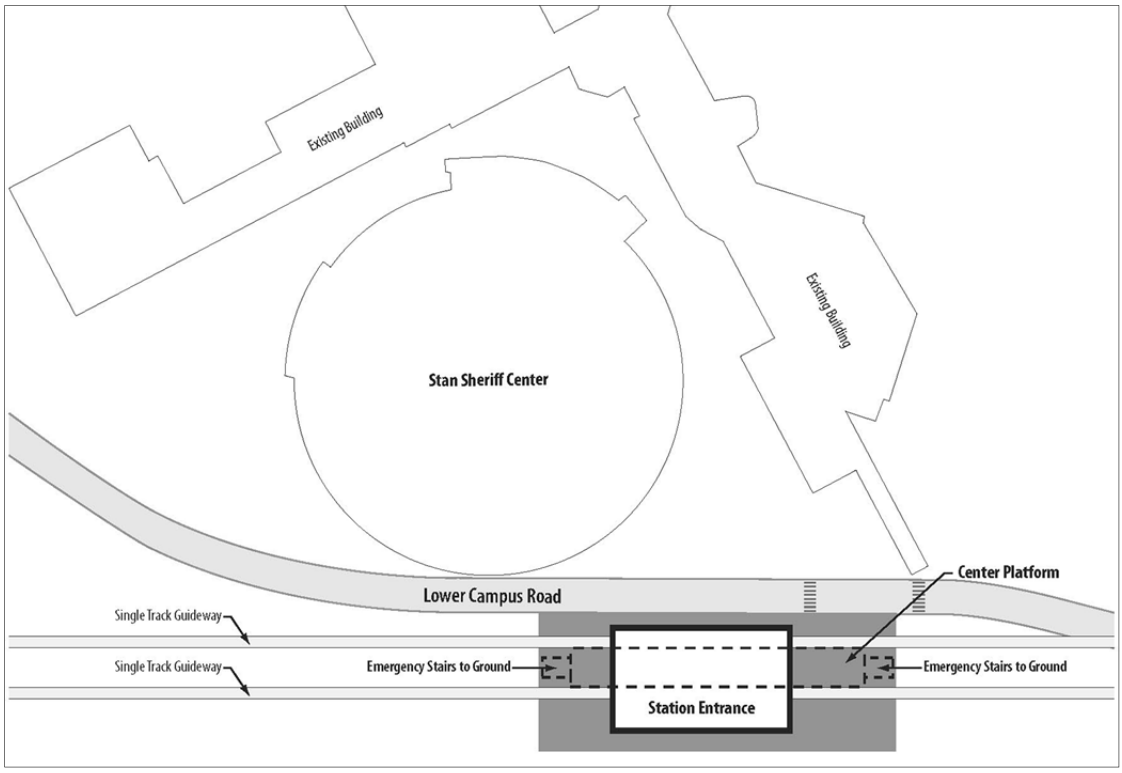


Figure 12. Beretania Street Tunnel Alternative UH Mānoa Station

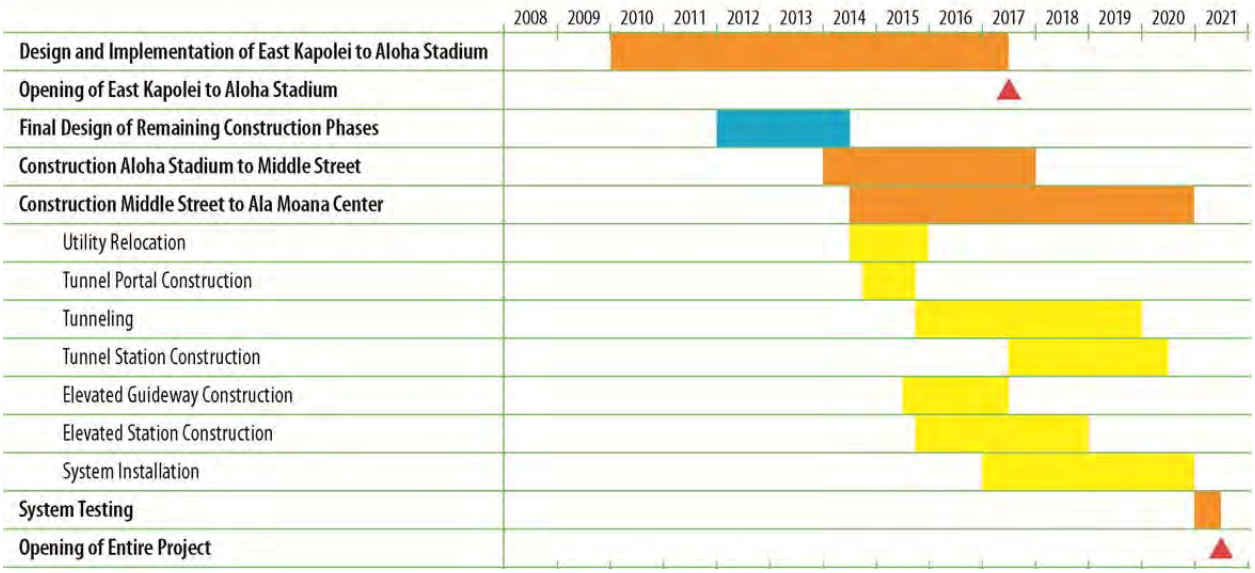


Figure 13. Project Schedule for the Beretania Street Tunnel Alternative

The alignment and station locations reflect all possible planning to avoid or minimize harm to Section 4(f) properties. As proposed in the Alternatives Analysis, the Beretania Street Tunnel Alternative would have used several Section 4(f) properties. The alternative was refined in the following ways to minimize and avoid such use.

The Fort Street Station, which would be underground, was moved one block ʻEwa to a parking lot, which would avoid the use of the following Section 4(f) properties, which surround the original station location (Figure 14):

- Central Fire Station
- Model/Progress Block
- Cathedral of Our Lady of Peace
- Kamaliʻi Mini Park

Construction impacts, station entrances and ventilation shafts would have used one or more of these properties. With this shift, there would be no Section 4(f) use in the vicinity of the Fort Street Station.

Similarly, the Kalākaua station location proposed in the Alternatives Analysis was between Kalākaua Avenue and Punahou Street with two entrances. The mauka station entrance would have used the Heu Commercial Building (Figure 15). To avoid Section 4(f) properties on the mauka side, the mauka station entrance was relocated adjacent to the King Kalākaua Building, which is also historic. This avoids all direct use of Section 4(f) properties by the station, but would require the full acquisition of 1340 King Street, currently occupied by Paradise Cruise LTD. This would increase business displacements, acquisitions, and right-of-way costs compared to the use of the Heu Commercial Building. Shifting the entire station Koko Head or ʻEwa would not be an avoidance alternative, as the makai entrance would use either the Washington Middle School or the Continental Building, both of which are NRHP eligible.

Finally, at the Hausten Street station location proposed in the Alternatives Analysis, the mauka station entrance would create a use of Mōʻiliʻili Triangle Park (Figure 16). The mauka entrance was shifted ʻEwa, out of the park. This avoidance alternative would require additional right-of-way acquisition from a parking lot ʻEwa of the park.

Despite all possible planning to avoid and minimize 4(f) impacts, the Beretania Street Tunnel Alternative would still create uses at other station locations. Avoidance alternatives for each of these are discussed in Section 3.3.

Figure 14. Avoidance Alternative Development at the Fort Street Station

Figure 15. Avoidance Alternative Development at the Kalākaua Avenue Station

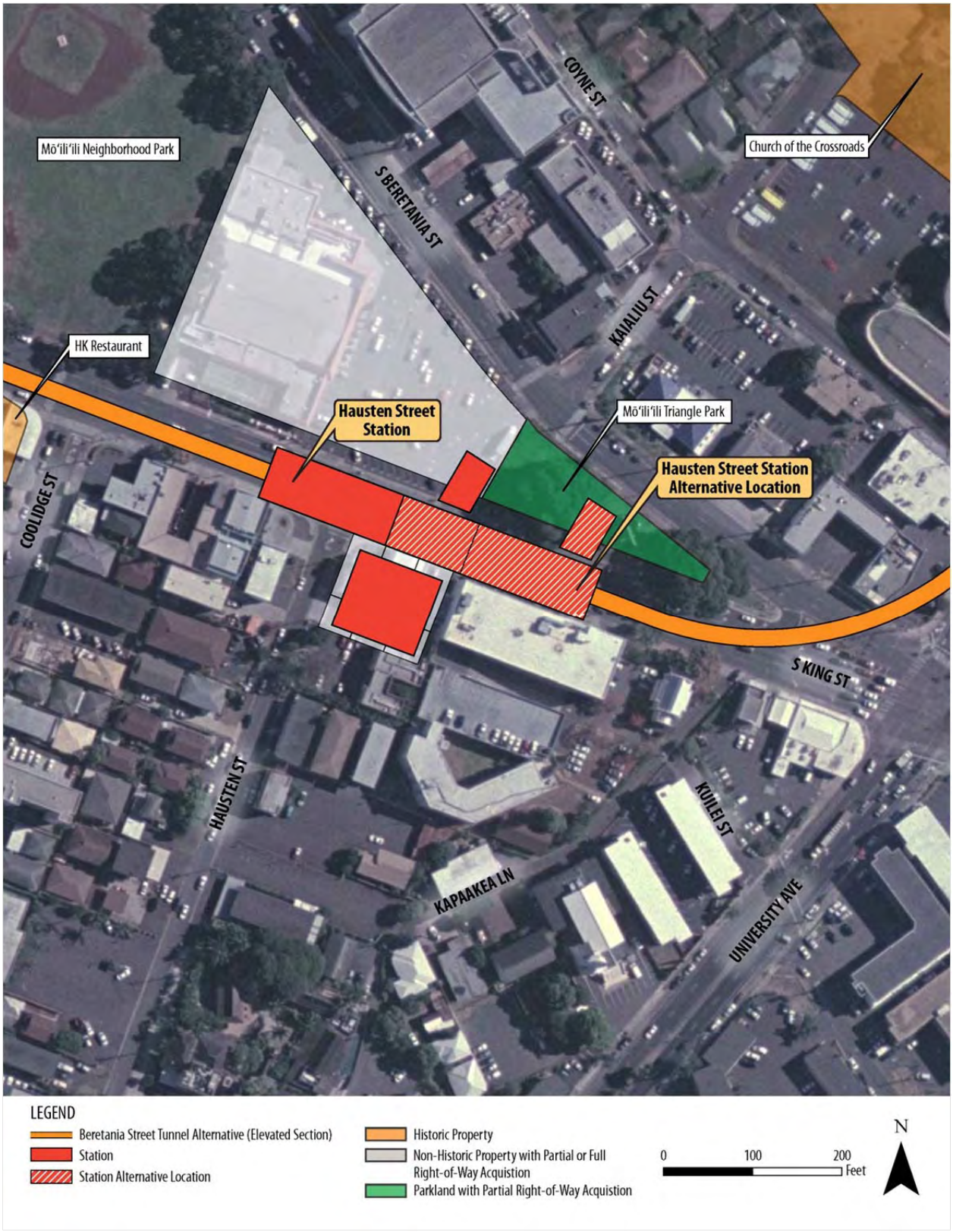


Figure 16. Avoidance Alternative Development at the Hausten Street Station

3.2 Section 4(f) Properties

Section 4(f) properties that would be affected by the Beretania Street Tunnel Alternative were identified using the same process and assumptions detailed for the Project in Section 5.4 of the Final EIS/4(f).

Seven public parks would be adjacent to the Beretania Street Tunnel Alternative (Table 1). The locations of the parks are shown on Figure 17. The City and County of Honolulu parks are open to the public from 5:00 a.m. to 10 p.m.

In addition to the park resources listed in Table 1, there are 4 NRHP-listed, 2 NRHP-eligible, and 42 additional historic resources that are in-period and treated as eligible for nomination to the NRHP (Table 2). The locations of the historic properties are shown on Figure 17. The properties that were evaluated as eligible for the NRHP were analyzed by qualified architectural historians based on age and review of integrity during the Alternatives Analysis (DTS 2006). The analysis of historic properties is detailed in Section 3.5.3 of this Draft Supplemental EIS/4(f). There are no known archaeological resources eligible for listing in the NRHP that would be used by the Beretania Street Tunnel Alternative [see Section 3.5.3 of this Draft Supplemental EIS/4(f)]. Information on Section 106, including NRHP-eligibility criteria, is included in Section 4.16.1 of the Final EIS/4(f).

Table 1. Publicly Owned Park and Recreational Properties Adjacent to the Beretania Street Tunnel Alternative

Property*	Description	Section 4(f) use
Aʻala Park	Aʻala Park is a 291,000-square-foot community park owned and maintained by the City and County of Honolulu Department of Parks and Recreation. It is open green space with basketball courts, a skatepark, and picnicking, walking, and jogging uses.	Guideway in tunnel below park, no use
Kamaliʻi Mini Park	Kamaliʻi Mini Park is a 30,000-square-foot park owned and maintained by the City and County of Honolulu Department of Parks and Recreation. The park contains planters, sidewalks, and urban landscaping. There are no active recreational facilities.	Guideway in tunnel adjacent to park, no use
Thomas Square	Thomas Square is a park and NRHP-listed historic property. It is a 256,000-square-foot open space owned and maintained by the City and County of Honolulu Department of Parks and Recreation. It is commonly used for walking, jogging, and passive recreation. There are no active recreational facilities, such as tennis or basketball courts. Views of and from the park are identified as significant in Chapter 21 of the Revised Ordinances of Honolulu.	Elevated guideway adjacent to park, no use
Pāwaʻa Inha Park	Pāwaʻa Inha Park is a 55,600-square-foot community park owned and maintained by the City and County of Honolulu Department of Parks and Recreation. It is open green space with park benches and footpaths but no active recreational facilities, such as tennis or basketball courts.	Elevated guideway adjacent to park, no use
Old Stadium Park	Old Stadium Park is a 265,000-square-foot park owned and maintained by the City and County of Honolulu Department of Parks and Recreation. It is commonly used for picnicking, walking, jogging, and passive recreation. There are no active recreational facilities, such as tennis or basketball courts.	Elevated guideway adjacent to park, no use
Mōʻiliʻili Neighborhood Park	Mōʻiliʻili Neighborhood Park is a 140,000-square-foot park owned and maintained by the City and County of Honolulu Department of Parks and Recreation. It includes a baseball diamond and a softball diamond along the ʻEwa side, with open space to the Koko Head side.	Elevated guideway adjacent to park, no use
Mōʻiliʻili Triangle Park	Mōʻiliʻili Triangle Park is a 16,600-square-foot park owned and maintained by the City and County of Honolulu Department of Parks and Recreation. It located in the triangle of land between Beretania and King Street. It contains park benches and holds the Mōʻiliʻili torii (Shinto-style gateway gifted by Honolulu's sister city of Hiroshima Japan).	Elevated guideway and station adjacent to park, no use

*The locations of Section 4(f) properties are shown on Figure 17.

Table 2. National Register of Historic Places Eligible or Listed Properties Evaluated for Section 4(f) Use

Property	Description	Impact or relationship to the Beretania Street Tunnel Alternative	Section 4(f) use
OR&L Office/Document Storage Building and Terminal Building within OR&L Parcel (NRHP Listed)	The OR&L Office/Document Storage Building is a two-story, Colonial Revival-style building at 355 North King Street constructed in 1914. The OR&L Terminal Building is a two-story, Spanish Mission Revival-style building constructed in 1925.	Ka‘aahi Street Station construction would require temporary support, relocation, or removal of the OR&L Office/Document Storage Building and temporary loss of existing street access and parking for the OR&L Terminal Building. Permanent entrances for underground Ka‘aahi Street Station located within boundary of historic property	Direct use
Former filling station within OR&L Parcel (NRHP eligible)	Building at 355 North King Street is a single-story, flat-roofed, masonry building constructed in 1940	Ka‘aahi Street Station construction would require temporary support, relocation, or removal of the former filling station. Permanent entrances for underground Ka‘aahi Street Station located within boundary of historic property	Direct use
Basalt paving blocks within OR&L Parcel (NRHP Eligible)	Roughly shaped, rectangular basalt paving blocks installed along Iwilei Road circa 1914	No use of paving blocks	No use
Chinatown Historic District (NRHP Listed)	The Chinatown Historic District encompasses approximately 36 acres near Nu‘uanu Stream and Honolulu Harbor and just ‘Ewa of Downtown Honolulu. The area derives its historical significance from its central role in the life of the local Chinese community, including its commerce, architecture, and institutions	Guideway in tunnel below district, construction impacts within roadway right-of-way inside district boundary	No use
Bethel and Chaplain Lane Building*	Building at 1171 Bethel Street built in 1951	Entrances for underground station located across Bethel Street from building	No use
Schnak Building*	Building at 1183 Bethel Street built in 1929	Entrances for underground station located across Bethel Street from building	No use
Hawai‘i Capital Historic District	The Hawai‘i Capita Historic District includes historic properties dating between 1794 and 1969. The area derives its historical significance from its central role in the governance of Hawai‘i	Guideway in tunnel below district, construction impacts adjacent to district	No use
Board of Water Supply Engineering Building*	Building at 630 S Beretania Street built in 1939	Elevated guideway adjacent to property	No use
Board of Water Supply Administration Building*	Building at 630 S Beretania Street built in 1957	Elevated guideway adjacent to property	No use
Thomas Square (NRHP Listed)	NRHP-listed park where Kamehameha III was restored to the throne in 1843. Established as a city park in 1925	Elevated guideway adjacent to park	No use

Table 2. National Register of Historic Places Eligible or Listed Properties Evaluated for Section 4(f) Use (continued)

Property	Description	Impact or relationship to the Beretania Street Tunnel Alternative	Section 4(f) use
McKinley High School (NRHP Listed)	NRHP-listed property at 1039 South King Street. The historic campus includes six contributing buildings built between 1923 and 1939	Entrances for aerial Pensacola Street Station located within boundary of historic property	Direct use
First Chinese Church of Christ*	Building at 1050 S King Street built in 1930	Elevated guideway adjacent to property	No use
1-story Deco Building, 1026 S King St*	Building at 1026 S King Street built in 1951	Elevated guideway adjacent to property	No use
Nitta Commercial Building*	Building at 1103 S King Street built in 1951	Elevated guideway adjacent to property	No use
Fukumoto Commercial Building*	Building at 1111 S King Street built in 1947	Elevated guideway adjacent to property	No use
Ishikawa 1-story Commercial Building*	Building at 1117 S King Street built in 1940	Elevated guideway adjacent to property	No use
Chang Commercial Building*	Building at 1125 S King Street built in 1948	Elevated guideway adjacent to property	No use
Chow 1-story Commercial Building*	Building at 1133 S King Street built in 1950	Elevated guideway adjacent to property	No use
Masui 1-story Commercial Building*	Building at 1145 S King Street built in 1940	Elevated guideway adjacent to property	No use
Saiki 1-1/2 Story Commercial Building*	Building at 1149 S King Street built in 1941	Elevated guideway adjacent to property	No use
Wong Commercial Building*	Building at 1155 S King Street built in 1947	Elevated guideway adjacent to property	No use
Precision Radio*	Building at 1160 S King Street built in 1950	Elevated guideway adjacent to property	No use
Clyde's Cleaners*	Building at 1234 S King Street built in 1949	Elevated guideway adjacent to property	No use
Mediterraneo*	Building at 1275 S King Street built in 1949	Elevated guideway adjacent to property	No use
Dr. A Tsuda Office*	Building at 1290 S King Street built in 1917	Elevated guideway adjacent to property	No use
Trophy House*	Building at 1301 S King Street built in 1957	Elevated guideway adjacent to property	No use
American Stereo*	Building at 1327 S King Street built in 1964	Elevated guideway adjacent to property	No use
Ikuta Commercial Building*	Building at 1401 S King Street built in 1955	Elevated guideway adjacent to property	No use
Sushi Sasabune*	Building at 1423 S King Street built in 1960	Elevated guideway adjacent to property	No use
Territorial Board of Agriculture and Forestry Building*	Building at 1428 S King Street built in 1961	Elevated guideway adjacent to property	No use
King Center Bank of Hawai'i*	Building at 1451 S King Street built in 1960	Elevated guideway adjacent to property	No use
Professional Center*	Building at 1479 S King Street built in 1955	Elevated guideway adjacent to property	No use
Continental Building*	Building at 1515 S King Street built in 1955	Elevated guideway and station adjacent to property	No use

Table 2. National Register of Historic Places Eligible or Listed Properties Evaluated for Section 4(f) Use (continued)

Property	Description	Impact or relationship to the Beretania Street Tunnel Alternative	Section 4(f) use
King Kalākaua Building*	Building at 1534 S King Street built in 1946	Elevated guideway and station adjacent to property	No use
Heu Commercial Building*	Building at 1562 S King Street built in 1940	Elevated guideway and station adjacent to property	No use
Washington Middle School*	Building at 1633 S King Street built between 1939 and 1953	Elevated guideway adjacent to property	No use
Dental Office, 1702 S King St*	Building at 1702 S King Street built in 1928	Elevated guideway adjacent to property	No use
KNDI Radio*	Building at 1734B S King Street built in 1928	Elevated guideway adjacent to property	No use
Miss Hawai'i Building*	Building at 1738 S King Street built in 1930	Elevated guideway adjacent to property	No use
Kimura Florist*	Building at 1809 S King Street built in 1925	Elevated guideway adjacent to property	No use
T. Ishibashi Building*	Building at 1869 S King Street built in 1962	Elevated guideway adjacent to property	No use
Tenrikyo Honolulu Church*	Building at 1902 S King Street built in 1946	Elevated guideway adjacent to property	No use
King Florist*	Building at 1915B S King Street built in 1945	Station Entrance and support buildings would displace the property.	Direct use
James M. Chrones Building*	Building at 2017 S King Street built in 1948	Elevated guideway adjacent to property	No use
Ishizuchi Shrine*	Building at 2020 S King Street built in 1962	Elevated guideway and station adjacent to property	No use
Safety Loan Building*	Building at 2065 S King Street built in 1964	Elevated guideway adjacent to property	No use
J.C. Tom Building*	Building at 2239 S King Street built in 1929	Elevated guideway adjacent to property	No use
Choy Commercial Building*	Building at 2342 S King Street built in 1955	Elevated guideway adjacent to property	No use
HK Restaurant*	Building at 2425 S King Street built in 1963	Elevated guideway adjacent to property	No use
Church of the Crossroads (NRHP Listed)	Building at 1212 University Avenue built in 1935	Elevated guideway adjacent to property	No use

*Forty-two properties were evaluated by qualified architectural historians based on age (built before 1967) and review of integrity during the Alternatives Analysis and treated as eligible for the purpose of this analysis.

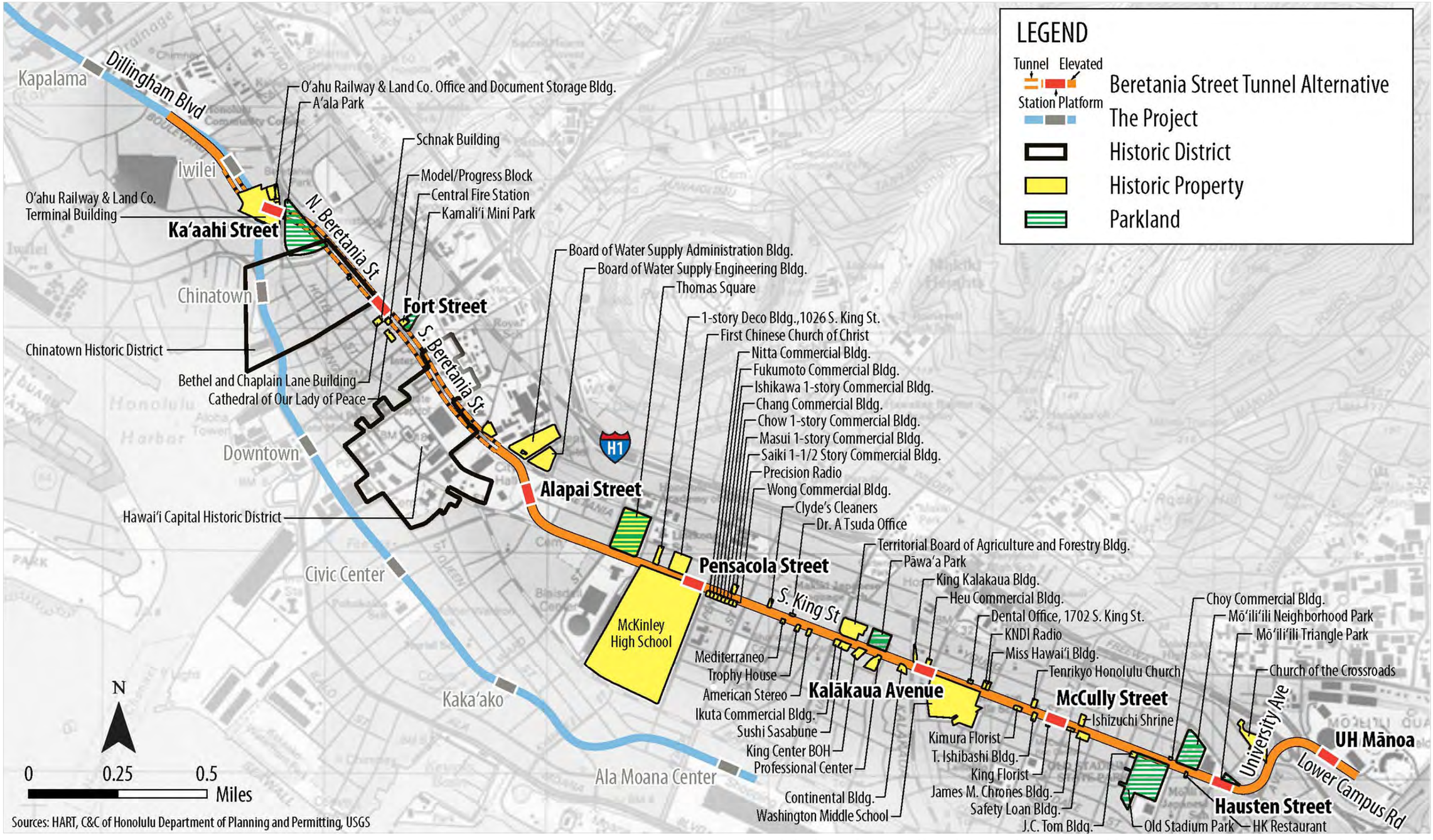


Figure 17. Historic and Recreational Properties Affected by the Beretania Street Tunnel Alternative

3.3 Use of Section 4(f) Properties by the Beretania Street Tunnel Alternative

The Beretania Street Tunnel Alternative was evaluated for Section 4(f) use according to the regulations and guidance outlined in Section 1.2.1 of this Draft Supplemental EIS/4(f) using the same process and assumptions detailed for the Project in Chapter 5 of the Final EIS/4(f).

The Section 4(f) use analysis incorporates design changes to the Beretania Street Tunnel Alternative that was evaluated in the Alternatives Analysis to avoid and minimize the use of Section 4(f) resources [see Section 3.1 of this Draft Supplemental EIS/4(f)]. The changes are detailed in the evaluation of use of individual Section 4(f) properties.

Consistent with the findings of the Section 4(f) evaluation for the Project included in Chapter 5 of the Final EIS/4(f) and in Chapter 4 of this Draft Supplemental EIS/4(f), there would be no direct or constructive use of the parks (Table 1) or historic properties (Table 2) adjacent to, but not directly affected by the Beretania Street Tunnel Alternative. Views to and from Thomas Square are protected as significant in Chapter 21 of the Revised Ordinances of Honolulu. The views to and from Thomas Square along South King Street are screened by trees and utility lines [shown in Figure 24 and discussed in Section 3.5.3 of this Draft Supplemental EIS/4(f)]. The views were not identified as significant to the setting in the NRHP listing for the property. Therefore, they do not constitute significant features or attributes considered important contributing elements to the historic value of the property for purposes of Section 4(f). No use was found for parks with similar properties in a context similar to the Project. This assessment was based on the similarity between the range of resources and proximity of the guideway evaluated in Section 5.6.3 of the Final EIS/4(f) and the range of park and historic resources affected by the Beretania Street Tunnel Alternative.

De minimis impacts were considered for properties with direct use. As detailed in Section 1.2.2, the incorporation of land from individual historic properties where an adverse effect determination has been made would not qualify as a *de minimis* impact. The consideration of *de minimis* impacts applies the same process and assumptions detailed for the Project in Chapter 5 of the Final EIS/4(f).

Except for the portal, station, and vent structures, the portion of the alternative traveling in a tunnel would not have a Section 4(f) use of the property above the tunnel, as per the Section 4(f) Policy Paper (USDOT 2012). The elevated guideway is generally located within the existing roadway right-of-way and would not require additional right-of-way. Right-of-way would be required for each of the stations, and in many cases there are Section 4(f) properties in the vicinity of the stations (Figure 17). Because the Section 4(f) properties that would be used by

the Beretania Street Tunnel Alternative are grouped around stations, the properties are evaluated by grouping around each station area.

3.3.1 O‘ahu Rail and Land Parcel

Property Description

The OR&L parcel includes four historic elements—the OR&L Office/Document Storage Building, OR&L Terminal Building, former filling station on the OR&L parcel, and basalt paving blocks along Iwilei Road. The OR&L Office/Document Storage Building and Terminal Building are two buildings on one property (OR&L parcel), which is listed on the NRHP. They are considered contributing elements to the NRHP-listed OR&L property.

- The **O‘ahu Railway & Land Co. (OR&L) Terminal Building** is a two-story, Spanish Mission Revival-style building constructed in 1925. The property is important for its association with the OR&L, a force in the development of O‘ahu, and as an example of a Spanish Mission Revival-style building with high artistic value. The property is listed on the NRHP along with the OR&L Office/Document Storage Building under Criteria A and C.
- The **OR&L Office/Document Storage Building** is a two-story, Colonial Revival-style building constructed in 1914. The property is important for its association with the OR&L, and as a rare surviving example of Colonial Revival architecture in Honolulu. The property is listed on the NRHP under Criteria A and C.
- The **former filling station** on the OR&L property is a single-story, flat-roofed, masonry building constructed in 1940. The property is important for its association with the development of the A‘ala neighborhood. Although it is located on the OR&L property, because of the period of significance it is not a contributing resource to that historic complex. The filling station has been identified as a separate historic property. The property is eligible for listing on the NRHP under Criterion A.

The **OR&L basalt paving blocks** are roughly shaped, rectangular basalt paving blocks installed along Iwilei Road circa 1914. They are important for their association with the development of Honolulu’s roadway infrastructure, and because they demonstrate the distinctive method of using basalt paving blocks in road construction in Honolulu. The paving blocks were not identified as a contributing resource to that historic complex but therefore have been identified as a separate historic property. The property is eligible for listing on the NRHP under Criteria A, C, and D.

Section 4(f) Evaluation

The Kaʻaahi Street Station is within the boundary of the NRHP-listed OR&L parcel that includes two contributing elements, the OR&L Office/Document Storage Building and Terminal Building. In addition the parcel includes two historic properties that are not identified as contributing to the listed OR&L property, but have been determined eligible individually: basalt paving blocks along Iwilei Road, and a former filling station (Figure 18).

The Kaʻaahi Street Station would be constructed using a cut-and-cover approach that opens a large pit the size of the station, which is closed and restored at the end of station construction. This would require temporary support, relocation, or removal of the OR&L Office/Document Storage Building and the former filling station and would constitute use of the Section 4(f) property. The OR&L Terminal Building would not be directly affected during construction; however, access to the building would be restricted. The permanent station entrances, ventilation structures, and other above-ground features would be within the boundary of the OR&L parcel (Figure 5) and would result in a direct permanent use of the property. The Kaʻaahi Street Station would result in use of the OR&L Office/ Document Storage Building, OR&L Terminal Building, and former filling station; land within the boundary of these resources would be permanently incorporated into a transportation use. The basalt paving blocks would not be altered by the Kaʻaahi Street Station. The Beretania Street Tunnel Alternative would tunnel under Aʻala Park, which would not constitute a use of the park.

Avoidance Alternatives and Measures to Minimize Harm

The Kaʻaahi Street Station is located at the ʻEwa end of the tunnel where the tracks would be transitioning from above ground to tunnel. Stations must be placed on a flat and straight track section to meet Americans with Disabilities Act requirements for safe loading and unloading of the train; therefore, the station could not be moved ʻEwa. Moving the station Koko Head would place it in Aʻala Park, another Section 4(f)-protected resource. The construction would still require substantial disturbance to the OR&L property to excavate for the station, resulting in use of both the OR&L property, resulting in use of both the OR&L property and Aʻala Park. Nuʻuanu Stream and the Chinatown Historic District are immediately Koko Head of Aʻala Park.

Section 4(f) Use

After incorporating all measures to minimize harm, the Kaʻaahi Station would result in the use of three Section 4(f) properties: the OR&L Office/Document Storage Building, OR&L Terminal Building, and the former filling station on the OR&L property.

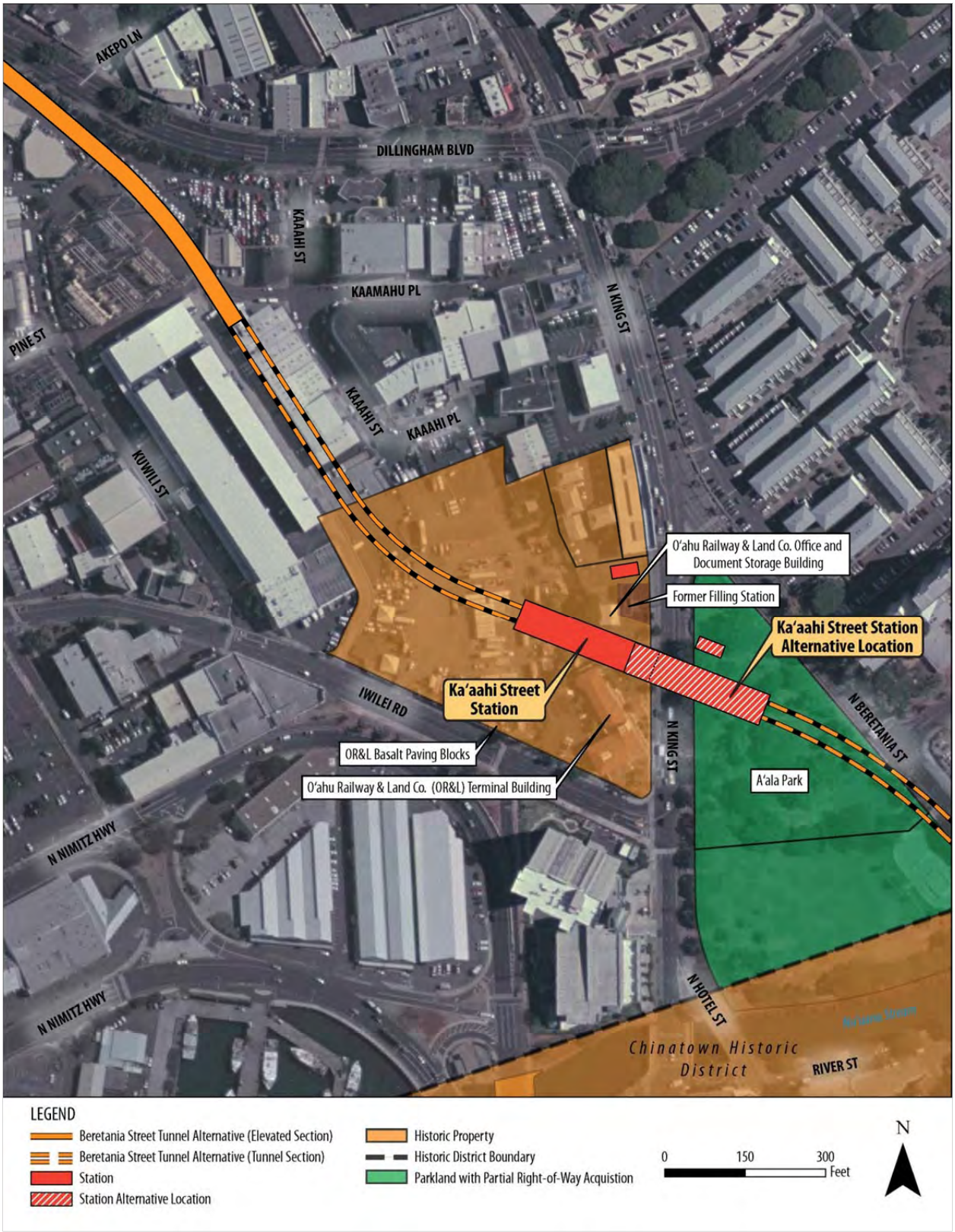


Figure 18. Avoidance Alternatives Evaluated for the Ka'aahi Street Station

3.3.2 McKinley High School

Property Description

The **McKinley High School** NRHP listing form states "The McKinley High School is significant in the history of education in the State of Hawai'i as the oldest high school in the State and the leading public school in Hawai'i during the nineteen twenties and thirties." The form identifies five buildings, demonstrates that the school is also "architecturally significant as one of the most elegant examples of Spanish Colonial revival architecture in Hawai'i." The property is NRHP-listed under Criteria A and C.

Section 4(f) Evaluation

The Pensacola/King intersection is in the vicinity of the NRHP-listed McKinley High School on the makai/'Ewa corner, a series of eight historic buildings on the makai/Koko Head corner, the Kaiser Permanente Honolulu Clinic and parking garage on the 'Ewa/mauka corner and businesses and residences on the mauka/Koko Head corner (Figure 19). The station layout includes a makai entrance within the McKinley High School property, and the use is limited to a grassy area adjacent to King Street. The elevated platforms would cross over the mauka edge of the McKinley High School property. The support structure of the platform and guideway, station entrance, and associated ground level station features would affect non-contributing elements of the McKinley High School property. The station construction would permanently incorporate land into a transportation use and introduce visual elements, which would diminish the integrity of the property's setting. Therefore, the Beretania Tunnel Alternative would have an adverse effect on the historic property. The use of the property would not be considered to have a *de minimis* impact.

Avoidance Alternatives and Measures to Minimize Harm

One alternative would be to shift the station Koko Head. However this would impact a series of Section 4(f) buildings on the makai side of King Street, and create full acquisitions or demolition of either 3 or 4 of them. Since this alternative would use other Section 4(f) properties, it would not be an avoidance alternative. The 15,800 square-foot partial acquisition at McKinley High School would generate less harm than the demolition of multiple Section 4(f) properties.

Section 4(f) Use

The Pensacola Street Station would result in the use of McKinley High School.

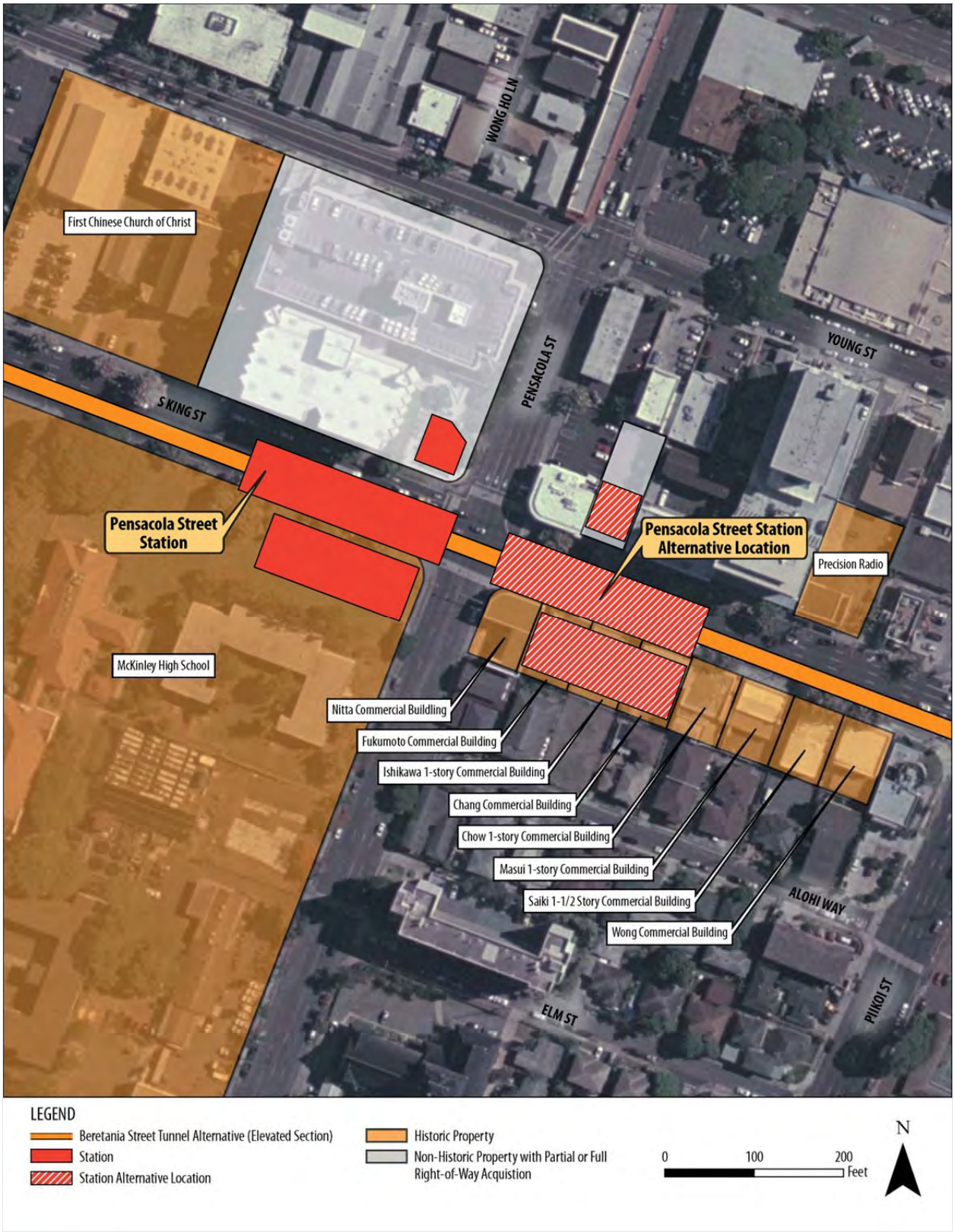


Figure 19. Avoidance Alternatives Evaluated for McKinley High School

3.3.3 King Florist

Property Description

King Florist at 1915B South King Street was built in 1945 and was identified in the alternatives analysis as potentially eligible for nomination to the NRHP under Criteria C (DTS 2006).

Section 4(f) Evaluation

The McCully Street Station would require property along the makai side of South King Street to accommodate makai edge of the station platform, station entrance building, and traction power substation (TPSS). This would require acquisition and demolition of King Florist, a NRHP-eligible property (Figure 20). The McCully Street Station would permanently incorporate the land into a transportation use.

Avoidance Alternatives and Measures to Minimize Harm

The station location proposed in the Alternatives Analysis was situated closer to Wiliwili Street, where the makai entrance and ancillary facilities would have demolished the NRHP-eligible Safety Loan Building. The mauka entrance would have been adjacent to the NRHP-eligible Ishizuchi Shrine (Figure 20). There is another NRHP-eligible building that takes up most of the block between McCully Street and the Safety Loan Building—the James M. Chrones Building. Shifting the station slightly ‘Ewa of Wiliwili Street, but within the same block, would use the James M. Chrones Building.

Section 4(f) impacts were reduced by shifting the station one block to the ‘Ewa side of McCully Street. The intersection of McCully and King Streets has historic properties on both makai corners. With the ‘Ewa shift, the station would avoid the Safety Loan Building as well as the James M. Chrones Building; however, it would use the King Florist Building, which is a smaller and less prominent building than either the Safety Loan Building or James M. Chrones Building. Its acquisition would be less expensive as well. For these two reasons, it is a least harm alternative to using the Safety Loan or James M. Chrones buildings.

Another possible avoidance for impact to the King Florist Building would be to move the TPSS and other ancillary buildings mauka of King Street. However, the space requirements around the station entrance and station platforms would still require a right-of-way acquisition at King Florist, resulting in a use of the property. Therefore, moving the ancillary buildings would not avoid the use, while creating an additional right-of-way acquisition mauka of the station.

Section 4(f) Use

The McCully Street Station would result in the direct use of King Florist.

Figure 20. Avoidance Alternatives Evaluated for King Florist

3.3.4 Temporary Occupancy

Construction of the Fort Street Station would include excavation within the roadway right-of-way inside the Chinatown Historic District boundary. Because it would be limited to within the right-of-way, it would not constitute a temporary occupancy. Beretania Street Tunnel Alternative construction would not cause temporary occupancy of any Section 4(f) properties beyond those already identified for direct use.

3.3.5 Summary of Use of Section 4(f) Properties by the Beretania Street Tunnel Alternative

The Beretania Street Tunnel Alternative would use two historic properties already listed on the NRHP and two NRHP-eligible properties. These are the OR&L parcel (including the NRHP-listed Office/Document Storage Building and OR&L Terminal Building and the NRHP-eligible former filling station), the NRHP-listed McKinley High School, and the NRHP-eligible King Florist Building.

3.4 Evaluation of Feasibility

23 CFR 774 defines a feasible and prudent avoidance alternative as an alternative that avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting Section 4(f) properties [see Section 1.2.1 of this Draft Supplemental EIS/4(f)]. An alternative is not feasible if it cannot be built as a matter of sound engineering judgment.

The Beretania Street Tunnel Alternative would require tunnel construction through mixed ground conditions below the water table for most or all of its length (DTS, 2007), which would increase the risk of settlement and damage to adjacent buildings, including those in the Chinatown and Hawai‘i Capital Historic Districts, which are listed in the NRHP. Because of the ground conditions and shallow depth of the Beretania Street Tunnel (between 20 and 40 feet of cover), ground settlement is a particular risk. Pre-construction testing and pre-grouting of vulnerable ground would be required to reduce the potential for creating voids that lead to settlement.

Surface settlement can occur if the ground exposed by the tunnel excavation relaxes into the excavation before the tunnel lining can be installed to check the inward movement. Earth-pressure balance tunnel boring machines (TBM) reduce settlement to a minimum by supporting the ground beyond the machine’s rotating cutterhead with pressurized fluids (Figure 21). As the TBM is advanced, fluid carrying the excavated soil is conducted via pressure doors through the machine to a muck-train for disposal. Segments of the tunnel lining are assembled into rings behind the cutter-head and bolted to the previously assembled ring. As the machine is advanced, cement grout is pumped behind the lining to fill the circumferential void left by the steel skin of the advancing machine.

If silt, sands, or other fine soils above the tunnel under significant hydro-static pressure are encountered at the face, the pressurized soils can flow quickly into the excavated face, leaving a void high above the tunnel which is not reached by the regular cement back-grout. This void can then work its way to the surface as material caves in resulting in surface settlement. The risk is reduced by carefully and continually measuring the volume of material being extracted through the machine and comparing that volume with theoretical volume of the advancing excavation. If the monitored amount of excavated material exceeds the volume of the tunnel excavation, tunneling must be temporarily halted and the voids located by drilling from the surface or from the tunnel. Cement-grout or other fill material is pumped into the void before it can reach the surface and cause settlement and damage to structures or surface roadways near the tunnel.

Source: John Walser of Sound Transit

Figure 21. Example of a Tunnel Boring Machine

The Beretania Street Tunnel Alternative would require surface excavation of portals, stations, and ventilation facilities in areas with congested traffic. As discussed later in Section 3.5.3, the construction period would include prolonged lane closures and disturbance of historic properties. These issues pose difficulty to construction, increase construction costs, and introduce a potential for damage to historic properties, but it would be feasible as a matter of technical engineering to construct the Beretania Street Tunnel Alternative.

3.5 Evaluation of Prudence

23 CFR 774 defines a feasible and prudent avoidance alternative as an alternative that avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting Section 4(f) properties [see Section 1.2.1 of this Draft Supplemental EIS/4(f)]. An alternative is not prudent if:

- It compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;
- It results in unacceptable safety or operational problems;
- After reasonable mitigation, it still causes:
  - Severe social, economic, or environmental impacts;
  - Severe disruption to established communities;
  - Severe disproportionate impacts to minority or low income populations; or
  - Severe impacts to environmental resources protected under other Federal statutes;
- It results in additional construction, maintenance, or operational costs of an extraordinary magnitude;
- It causes other unique problems or unusual factors; or
- It involves multiple factors in [the paragraphs above], that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude.

3.5.1 Effectiveness at Meeting Purpose and Need

The first test for prudence is whether or not an alternative would compromise the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need [Section 1.4 of this Draft Supplemental EIS/4(f)]. This section evaluates how well the Beretania Street Tunnel Alternative meets these needs considering the measures evaluated in Section 7.2 of the Final EIS/4(f).

Improve corridor mobility

The Beretania Street Tunnel Alternative would serve the same corridor and generate similar transit ridership and benefits to the Project (Table 3). The Beretania Street Tunnel Alternative would include additional stations and directly serve UH Mānoa, while requiring a bus transfer to Ala Moana Center. The approved Project would directly serve Ala Moana Center and requires a bus transfer to UH Mānoa. These transfers are reflected in the transit travel times presented in Table 3.

With the Beretania Street Tunnel Alternative there would be a less than 1-percent increase in daily transit trips taken on O‘ahu, but the user benefits (travel time savings) for the average user would decrease by approximately 2 percent (Table 3).

Table 3. Effectiveness in Improving Corridor Mobility

Attribute	Alternative (2030)		
	Beretania Street Tunnel	The Project	The Project with Future Extension to UH Mānoa
Transit Travel Time (minutes)*			
Wai‘anae to UH Mānoa	84 minutes	93 minutes	86 minutes
Kapolei to Ala Moana Center	71 minutes	59 minutes	59 minutes
Transit Performance			
Daily rail boardings	120,700	116,300	132,700
Daily total transit trips	284,400	282,500	290,800
Transit user benefits (hours per year)	20,435,000	20,775,000	23,301,000
Highway Performance			
Daily islandwide vehicle miles traveled	13,065,000	13,049,000	13,019,000
Daily islandwide vehicle hours traveled	384,100	383,800	381,800
Daily islandwide vehicle hours of delay	85,700	85,800	84,500

*Travel time includes transfer time

As shown in Table 3, vehicle miles traveled, vehicle hours traveled, and vehicle hours of delay would differ by less than 1 percent between the Project and the Beretania Street Tunnel Alternative.

The Final EIS analyzed the Project, including future extensions to Waikiki and UH Mānoa. With the planned future extension to UH Mānoa only, rail boardings with the Project would increase to 132,700, which would be a 10 percent increase compared to the Beretania Street Tunnel Alternative (Table 3). Likewise, total islandwide transit trips would increase by two percent and user benefits by 14 percent compared to the Beretania Street Tunnel Alternative. A drawback of the Beretania Street Tunnel Alternative is the mauka location of its alignment, which would preclude future extension to Waikiki or direct service to Ala Moana Center, requiring bus transfer to serve those destinations. The Project, by comparison, serves these major destinations ultimately with fewer transfers (Figure 3).

Improve corridor travel reliability

Reliability for transit riders would be similar for the Project and the Beretania Street Tunnel Alternative, as similar percentage of passengers would be carried on fixed guideway transit and exclusive right-of-way (Table 4).

Table 4. Effectiveness of Alternatives in Improving Corridor Travel Reliability

Measure	Beretania Street Tunnel Alternative	The Project
Percent of transit trips carried on fixed guideway	42%	43%
Percent of transit passenger miles in exclusive right-of-way	44%	43%

Improve access to planned development to support City policy to develop a second urban center

Both the Project and the Beretania Street Tunnel Alternative would support urban development consistent with the City General Plan (DPP 2002), which is the blueprint for future population and employment growth. With both alternatives, the majority of transit users in ‘Ewa and Central O‘ahu, which are areas planned for future development, would experience similar travel times (Table 3).

Improve transportation equity

Equity relates to the fair distribution of a project’s benefits and impacts, so that no group would carry an unfair burden of a project’s negative environmental, social, or economic impacts or receive less than a fair share of a project’s benefits. Equity considers the population segments benefiting and net benefits by population segment. The benefit is calculated in travel-time savings and is compared between areas with concentrations of communities of concern and the remainder of O‘ahu. Communities of concern are defined as concentrations of minority, low-income, transit-dependent, and linguistically isolated households. Approximately 35 percent of O‘ahu’s population currently live in areas that have concentrations of communities of concern. The spread of transit benefits would be similar between alternatives (Table 5). The calculation of travel-time savings is detailed in Section 3.4.2 of the Final EIS/4(f).

Summary of Purpose and Need Evaluation

Based on the above analysis, both the Project and the Beretania Street Tunnel Alternative would have similar effectiveness at meeting the Purpose and Need for the project. The Project would provide slightly greater user benefits by requiring a smaller percentage of transit passengers to transfer from rail to bus to reach their final destination.

Table 5. Equity Comparison of 2030 Transit Travel-time Savings Compared to the No Build Alternative

Percent of Islandwide Population	That will experience	Percent of Population within Category	
		Within Communities of Concern	Outside Communities of Concern
The Beretania Street Tunnel Alternative			
60%	Travel-time savings compared to the No Build Alternative	32%	68%
38%	Negligible travel-time change compared to the No Build Alternative	27%	73%
2%	Travel-time increase compared to the No Build Alternative	22%	78%
The Project			
61%	Travel-time savings compared to the No Build Alternative	34%	66%
39%	Negligible travel-time change compared to the No Build Alternative	36%	64%
0%	Travel-time increase compared to the No Build Alternative	0%	0%

3.5.2 Safety and Operational Considerations

The second test for prudence is if the alternative would result in unacceptable safety or operational problems. The Beretania Street Tunnel Alternative would include a tunnel section below the water table, which would increase operational and maintenance costs. Lighting, ventilation, and emergency egress systems would be required. The issues could be acceptably addressed through design and operating procedures. The elevated portion of the alignment would be similar to the Project guideway and stations; however, it would reduce capacity on King Street by one travel lane. King Street currently has excess capacity during peak hours; therefore, the reduction in capacity would adversely affect automobile travel but would not cause a failure in traffic operations. The alternative would be prudent regarding safety and operational concerns.

3.5.3 Social, Economic, Environmental, and Community Impacts

The third test for prudence is if the alternative, after reasonable mitigation, would cause severe social, economic, or environmental impacts; disruption to established communities; disproportionate impacts to minority or low-income populations; or impacts to environmental resources protected under other Federal statutes. The Beretania Street Tunnel Alternative would have long-term social, economic, environmental, community, and environmental justice impacts that are similar to the Project. As with the Project [Section 4.10.3 of the Final

EIS/(4f)], operational noise levels with the Beretania Street Tunnel Alternative could be mitigated to less than the FTA noise exposure impact criteria. The Beretania Street Tunnel Alternative would substantially differ from the Project regarding visual, historic architecture, archaeological, and construction impacts.

Visual Impacts

The visual assessment completed as part of the Alternatives Analysis (DTS 2007a) identified visual impacts ranging between medium and high in the South King Street corridor. King Street is a major arterial lined by a range of land uses, including parks, schools, historic buildings, and high-rise developments. Most of the corridor is low- to mid-rise commercial development dating from the middle part of the 20th century (Figure 22). The guideway would cross view corridors protected as either prominent or significant in Chapter 21 of the Revised Ordinances of Honolulu (Figure 23), including views from Alapai Street between King and Beretania Streets in the Hawai‘i Capital Special District and views to and from Thomas Square in the Thomas Square/Honolulu Academy of Arts Special District (Figure 24). The views to and from Thomas Square along South King Street are screened by trees and utility lines.

The views in the Capital Special District are defined as prominent in the ordinance and the views in the Thomas Square/Honolulu Academy of Arts Special District are defined as significant; both sets of views are protected by the ordinance. As described in Section 4.8.3 of the Final EIS/4(f), where the guideway would be a dominant element within a protected view corridor, there would be a significant visual impact on that view corridor.

Compared to the Project, the Beretania Street Tunnel Alternative would avoid view impacts in Chinatown and along the waterfront by traveling in a tunnel through the Chinatown and Hawai‘i Capital Historic Districts. However, from the portal on Beretania Street and continuing along King Street, the elevated guideway would be in a heavily traveled mixed-use corridor with view-sensitive elements, including the Thomas Square/Honolulu Academy of Arts Special District. In contrast, once the Project turns from Nimitz Highway onto Halekauwila Street, the guideway travels through a mixed-use neighborhood with mostly industrial and commercial uses that are not visually sensitive along Halekauwila and Queen Streets. Overall, the Beretania Street Tunnel Alternative would avoid view impacts in Chinatown and along the waterfront but introduce significant view impacts along South King Street.

Figure 22. Typical Views along the South King Street Corridor

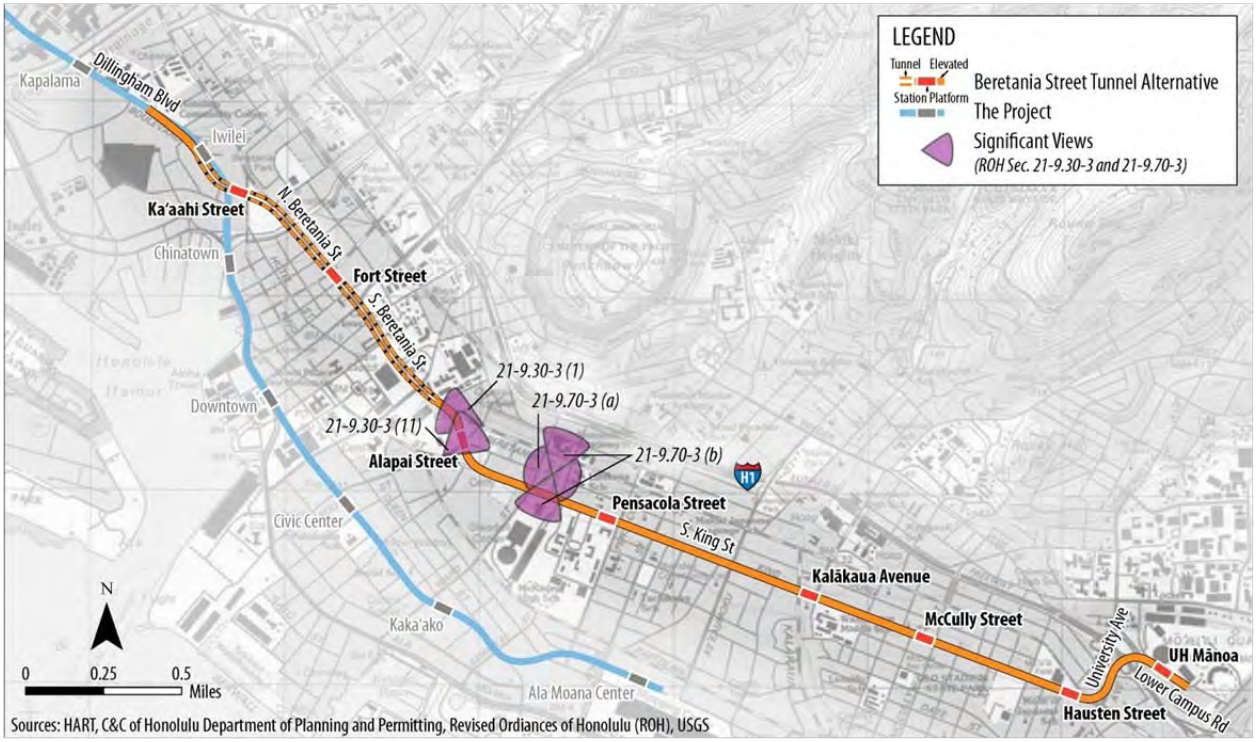


Figure 23. Significant Views Identified in Chapter 21 of the Revised Ordinances of Honolulu

Figure 24. View of Guideway from Thomas Square Looking Makai

Parklands

The Beretania Street Tunnel Alternative would travel as an elevated guideway adjacent to five City parks and in a tunnel adjacent to two additional parks (Table 6 and Figure 17). The effects on the parks adjacent to the elevated guideway would be similar to the effects on Mother Waldron Neighborhood Park [Section 4 of this Draft Supplemental EIS/4(f)] and Irwin Memorial Park [Section 5.6.1 of the Final EIS/4(f)] because the elevated guideway would be adjacent to the edge and visible from the five parks. The one exception would be Thomas Square, which, as described under Visual Impacts above, includes protected significant public views, including the view of Thomas Square from King Street and the view of the Neal S. Blaisdell Center from Thomas Square, that are defined in Section 21-9.70 of the Revised Ordinances of Honolulu that would be adversely affected by the Beretania Street Tunnel Alternative.

Table 6. Parklands Koko Head of Ka‘aahi Street Station

Property	Relationship
A‘ala Park	Guideway in tunnel below park
Kamali‘i Mini Park	Guideway in tunnel adjacent to park
Thomas Square	Elevated guideway adjacent to park
Pāwa‘a Inha Park	Elevated guideway adjacent to park
Old Stadium Park	Elevated guideway adjacent to park
Mō‘ili‘ili Neighborhood Park	Elevated guideway adjacent to park
Mō‘ili‘ili Triangle Park	Elevated guideway and station adjacent to park

Historic Architecture

As shown on Figure 17, the Beretania Street Tunnel Alternative would incorporate land from two NRHP-listed historic properties and two eligible historic properties (the OR&L Office/Document Storage Building and Terminal Building, McKinley High School, former filling station on the OR&L property, and the King Florist Building) and would have station entrances adjacent to two additional NRHP-eligible properties (Bethel and Chaplain Lane Building and Schnak Building). The elevated guideway would travel adjacent to an additional 2 listed and 39 properties treated as eligible for listing on the NRHP (Table 7 and Table 8). These are significant historic and architectural properties that were identified during the Alternatives Analysis process (DTS 2007b). As shown in Figure 17, there is a high concentration of historic properties located on South King Street, which is a result of the development pattern of Honolulu in the early- and mid-twentieth century.

Table 7. Affected Properties Listed in or Determined Eligible for the National Register of Historic Places

Property		Location
1.	OR&L Office/Document Storage Building and Terminal Building (NRHP listed)	Entrances for underground Ka‘aahi Street Station located within boundary of historic property
2	Former filling station within OR&L Parcel (NRHP eligible)	Entrances for underground Ka‘aahi Street Station located within boundary of historic property
3.	Thomas Square (NRHP listed)	Elevated guideway adjacent to park
4.	McKinley High School (NRHP listed)	Entrances for aerial Pensacola Street Station located within boundary of historic property
5.	Church of the Crossroads (NRHP listed)	Elevated guideway adjacent to property

The FTA, following the process included in 36 CFR 800.5, in consultation with the SHPO, went through an extensive process of evaluating potential impacts on historic properties immediately adjacent to the Project that was approved in the Record of Decision. Eligibility determinations made for the Project used property boundaries as the boundary for eligible historic properties unless there was a barrier or other physical element that provided a more logical boundary for a specific property. The impacts were determined based on age, resource integrity, integrity of setting, and visual and physical proximity to the historic resource (RTD 2009a). The SHPD concurred with the adverse effect determinations made by FTA and identified additional adverse effects that FTA agreed to for historic properties affected by the Project. The ACHP participated in the resolution of effects and signed the Programmatic Agreement (PA) (Attachment 2 to the PA [FTA 2011]). The determined effects included general effects, visual effects, and effects to integrity of setting, feeling, and association.

Applying the same methodology to the 47 historic properties adjacent to the Beretania Street Tunnel Alternative, the properties would be adversely affected under Section 106 of the National Historic Preservation Act of 1966 (as amended) by the elevated guideway, tunnel portals, and stations (Figure 17). The same approach to historic property boundaries as used in the Section 106 evaluation was applied to the 47 properties along the Beretania Street Tunnel Alternative. The adverse effect to King Florist would be demolition of the property, while the effect to the remaining properties would be the same as determined for the Project to historic properties adjacent to the elevated guideway including general effects, visual effects, and effects to integrity of setting, feeling, and association. As mentioned above, the SHPD concurred with adverse effect determinations for historic properties similarly affected by the Project. This analysis is conservative, in that it assumes all of the 47 properties preliminarily identified by historians would be determined historic and that the same types of visual, atmospheric, or audible elements found to cause adverse effects by the Project would also cause adverse effects to these properties. Should the Beretania Street Tunnel Alternative be selected, additional evaluation and consultation with the SHPO would be required for these properties.

*Table 8. Affected Properties Eligible for the National Register of Historic Places**

Property	Location
1. Bethel and Chaplain Lane Building	Entrances for underground station located across Bethel Street from building
2. Schnak Building	Entrances for underground station located across Bethel Street from building
3. Board of Water Supply Engineering Building	Elevated guideway adjacent to property
4. Board of Water Supply Administration Building	Elevated guideway adjacent to property
5. First Chinese Church of Christ	Elevated guideway adjacent to property
6. 1-story Deco Building, 1026 S King St	Elevated guideway adjacent to property
7. Nitta Commercial Building	Elevated guideway adjacent to property
8. Fukumoto Commercial Building	Elevated guideway adjacent to property
9. Ishikawa 1-story Commercial Building	Elevated guideway adjacent to property
10 Chang Commercial Building	Elevated guideway adjacent to property
11. Chow 1-story Commercial Building	Elevated guideway adjacent to property
12. Masui 1-story Commercial Building	Elevated guideway adjacent to property
13. Saiki 1-1/2 Story Commercial Building	Elevated guideway adjacent to property
14. Wong Commercial Building	Elevated guideway adjacent to property
15. Precision Radio	Elevated guideway adjacent to property
16. Clyde's Cleaners	Elevated guideway adjacent to property
17. Mediterraneo	Elevated guideway adjacent to property
18. Dr. A Tsuda Office	Elevated guideway adjacent to property
19. Trophy House	Elevated guideway adjacent to property
20. American Stereo	Elevated guideway adjacent to property
21. Ikuta Commercial Building	Elevated guideway adjacent to property

Property	Location
22. Sushi Sasabune	Elevated guideway adjacent to property
23. Territorial Board of Agriculture and Forestry Building	Elevated guideway adjacent to property
24. King Center Bank of Hawai'i	Elevated guideway adjacent to property
25. Professional Center	Elevated guideway adjacent to property
26. Continental Building	Elevated guideway and station adjacent to property
27. King Kalākaua Building	Elevated guideway and station adjacent to property
28. Heu Commercial Building	Elevated guideway and station adjacent to property
29. Washington Middle School	Elevated guideway adjacent to property
30. Dental Office, 1702 S King St	Elevated guideway adjacent to property
31. KNDI Radio	Elevated guideway adjacent to property
32. Miss Hawai'i Building	Elevated guideway adjacent to property
33. Kimura Florist	Elevated guideway adjacent to property
34. T. Ishibashi Building	Elevated guideway adjacent to property
35. Tenrikyo Honolulu Church	Elevated guideway adjacent to property
36. King Florist	Station Entrance and support buildings would displace the property.
37. James M. Chrones Building	Elevated guideway adjacent to property
38. Ishizuchi Shrine	Elevated guideway and station adjacent to property
39. Safety Loan Building	Elevated guideway adjacent to property
40. J.C. Tom Building	Elevated guideway adjacent to property
41. Choy Commercial Building	Elevated guideway adjacent to property
42. HK Restaurant	Elevated guideway adjacent to property

*These 42 properties were evaluated by qualified architectural historians based on age (built before 1967) and review of integrity during the Alternatives Analysis. Because the Beretania Street Tunnel Alternative was not advanced beyond that phase, formal eligibility determinations with consultation of the State Historic Preservation Officer (SHPO) were not completed; however, their eligibility for NRHP listing would be consistent with guidance provided by the SHPO and eligibility determinations made by the FTA for properties within the Area of Potential Effect of the Project.

These adverse effects to 47 historic properties would compare to the 15 historic properties between Kaʻaahi Street Station and Ala Moana Center identified as adversely affected by the approved Project (Figure 4-77 of the Final EIS). The high concentration of historic commercial buildings on South King Street is in direct contrast to the combination of mixed-use, industrial, and redeveloped properties along the Project alignment. Overall, the Beretania Street Tunnel Alternative would have an adverse effect on 47 historic properties as compared to 15 with the Project.

Archaeology

The Archaeological Technical Report completed for the Alternatives Analysis identified the Beretania Street Tunnel Alternative as extending predominantly over the Honolulu Plain, away from the intensive coastal prehistoric and historic land use (DTS 2007b). No field survey was completed during the Alternatives Analysis; however, substantial information was available from literature review that indicated that the portion of the alignment in a tunnel under Beretania Street is through an area of much higher potential for encountering archaeological deposits and burials than the area along South King Street. The Beretania Street area includes the tunnel portals and excavated stations, which would not disturb any known archaeological features or burials but would have a high potential for encountering unknown archaeological features or burials (DTS 2007b). The area of disturbed ground for each portal or underground station is much greater than for the elevated stations on the Project alignment. In total, the Beretania Street Tunnel Alternative would disturb 13 acres of ground between the Kaʻaahi station and UH Mānoa, including tunnel portals, underground stations, column foundations, utility relocations, repaving, and elevated stations. A total of approximately 400,000 cubic yards of material would be excavated during construction of the tunnel portals and underground stations to an average depth of between 50 and 60 feet below the surface. Any archaeological resources encountered in the portal and station areas could not be avoided.

The surveys for previously unidentified below-ground archaeological sites required by the agreement among FTA, the City, the U.S. Navy, the State Historic Preservation Division, and the Advisory Council on Historic Preservation have been completed for the entirety of the project alignment. The results of the below-ground surveys along the project alignment are reported in several volumes of an archaeological inventory survey report (HART 2010, HART 2012d, HART 2013a, HART 2013b). The surveys were conducted in accordance with survey protocols and procedures approved by the State Historic Preservation Division. In construction phases 1 and 2, no human skeletal remains were encountered. Two NRHP-eligible archaeological sites were documented in phases 1 and 2. In each case, they were determined eligible under Criterion D for their information potential. Thus, Section 4(f) does not apply to these sites [23 CFR 774.13(b)(1)].

Two NRHP-eligible sites were documented in construction phase 3, also eligible under criterion D. No human remains were encountered. HART and FTA have concluded that Section 4(f) does not apply and are consulting with the SHPD in accordance with section 774.13(b)(2).

The surveys identified 17 NRHP-eligible archaeological sites in construction phase 4. All these sites are eligible for their informational value only under criterion D of the Advisory Council regulations. Human skeletal remains were documented in 7 trenches within 4 of the 17 sites in construction phase 4. The human skeletal remains do not contribute to the sites' NRHP eligibility at all. HART and FTA have concluded that Section 4(f) does not apply and are consulting with the SHPD in accordance with section 774.13(b)(2).

The City and HART previously agreed that in the event any NRHP burials are identified during the archaeological inventory survey, the design of the Project would be modified to allow preservation of the burials in place and thus avoid any "use" of the site. HART has modified the design of the Project to avoid all the previously identified human remains in phase 4. Under Hawai'i law, the final determination regarding treatment of previously identified human skeletal remains is made by the O'ahu Island Burial Council and the State Historic Preservation Division. Regardless of the final determination, HART has modified the design of the Project to avoid any Section 4(f) use of the previously identified human skeletal remains. Overall, the Beretania Street Tunnel Alternative is located in an area with a lower potential to encounter archaeological resources and burials than the Project; however, the alignment, station locations, and portal locations for a tunnel are much less flexible than the column locations for an elevated guideway. As a result, the potential impact at the portals and stations is higher for the Beretania Street Tunnel Alternative than for the Project, which would disturb a limited area at column footings and stations. The Project would disturb 8 acres of land for column foundations, utility relocations, repaving, and elevated stations, which is 5 acres less than the Beretania Street Tunnel Alternative.

Construction

The construction methods for the Beretania Street Tunnel Alternative and the Project are different. Construction duration would be approximately 2 years longer than for the Project (Figure 13). Tunnel construction would require a large area at the 'Ewa portal to launch the tunnel boring machine and support the removal and dewatering of tunnel spoils (material removed from the tunnel). This area would be in use for the duration of the tunnel construction.

Tunnel construction would also require an area around each underground station and the Koko Head portal to allow for excavation (Figure 25). The top of the bored tunnel would be between 20 and 40 feet below the surface and the construction of stations would include digging a large pit to this depth at each station. The areas affected by the excavation for each station are shown on

Figure 25. Tunnel Portal and Tunnel Station Area Disturbance during Construction

Figure 25 and the staging is discussed for each station individually. The duration of construction would be much longer and the area required larger for tunnel stations than for elevated stations. The total area of construction easements required for the Beretania Street Tunnel Alternative would be approximately 18 acres, compared to 9 acres required Koko Head of Iwilei for the Project.

In total, approximately 490,000 cubic yards of spoils would be removed from the tunnel and stations and require disposal. This would result in approximately 49,000 round-trip truck trips to and from the Kaʻaahi Street portal site if typical 10-yard dump trucks are used. If construction occurs 6 days per week over the approximately five-year tunnel construction period (Figure 13), there would be an average of 63 one-way truck trips to or from the site per day to transport the tunnel spoils.

A currently vacant former auto dealership along with 6 parcels that would be acquired on the makai side of Kaʻaahi Street near the ʻEwa portal would provide sufficient space to stage tunnel construction. Construction beginning at the ʻEwa portal and extending through the Kaʻaahi Street Station would be cut-and-cover (excavated down from the surface, then re-covered once the station structure is constructed to support the cover). A tunnel boring machine would bore the two parallel tunnels from the Kaʻaahi Street Station to the Koko Head Portal.

The Kaʻaahi Street Station and the tunnel staging area is constrained by the surrounding historic OR&L buildings. Construction would require relocation, demolition, or temporary support of at least one of the buildings and closure of the parking lot, requiring alternative access to the State of Hawaiʻi Department of Human Services offices. The makai lanes of King Street would be temporarily closed, first to relocate utilities, then for construction of the Koko Head end of the Kaʻaahi Street Station.

The Fort Street Station also would be constructed using a cut-and-cover method by excavating from above. During construction, the entire parking lot between Nuʻuanu Avenue and Bethel Street at Beretania Street would be used for staging. Construction of the station would require closure of lanes in Beretania Street and a portion of adjacent streets for periods extending up to several months. The total station construction duration for underground stations would be approximately 33 months for each station compared to 21 months for elevated stations. Over the nearly three-year station construction period, the station would be excavated from above in three stages to maintain traffic on three or four of Beretania Street's six lanes during peak periods. Once the shell of the station is complete, the roadway would be restored above it and the station would be finished from inside. In contrast, construction of the elevated guideway and the Chinatown Station for the Project would require substantially shorter periods of lane closures on Nimitz Highway, totaling only a few months of the 21-month construction duration, both because of the segmental construction technique used for the elevated structure and because much of the Chinatown Station will be located outside the Nimitz Highway right-of-way on what is currently a parking lot.

The Koko Head portal would require reconfiguration and reconstruction of a portion of the municipal parking garage near Beretania Street and Alapai Street. The construction would require closure of the two makai lanes of Beretania Street at various times, extending for up to several months. Because of the limited space at the Koko Head portal, the tunnel boring machine would have to be dismantled and returned to the ‘Ewa end to bore the second tunnel. The closures and restrictions would be temporary and, after construction, the facilities would be reopened.

Construction of the elevated section and stations along South King Street would be more rapid than in the tunnel section, similar to construction of the Project; however, South King Street is a major arterial that provides one of the few ‘Ewa to Koko Head connections through the city center. According to 2007 traffic counts (RTD 2009), King Street carries approximately 1,600 cars per hour in the vicinity of Cooke Street, while Halekauwila carries approximately 700 cars per hour. The much greater traffic volumes on King Street would result in greater traffic impacts during the construction phase than for the Project.

Unlike the Project, where the guideway would generally run along the center of streets, the guideway would run along the makai side of King Street, creating a greater impact on properties along the makai side during construction. Access to Neal S. Blaisdell Center would be restricted from King Street but maintained from Kapi‘olani Boulevard during construction. While sidewalk access to businesses along King Street would be maintained during construction, street parking in the construction area would be eliminated, making access to small businesses more difficult. Driveway access from King Street to parking lots would be maintained to the extent feasible but would be closed at certain times, such as utility relocation across the driveways, repaving of portions of South King Street, or when guideway sections are being placed over the entrance.

Construction noise would be of similar magnitude to that described in Section 4.18.5 of the Final EIS/4(f) for the Project, except at the launch and retrieval sites of the tunnel boring machine and at construction areas where the removal and dewatering of tunnel spoils are conducted. These activities would have potential noise and vibration impacts on sensitive land uses in their vicinity.

3.5.4 Costs of an Extraordinary Magnitude

The fourth test for prudence is if the alternative would result in additional construction, maintenance, or operational costs of an extraordinary magnitude. The Beretania Street Tunnel Alternative would increase the capital cost of the Project (the cost to construct) by $960 million in year of expenditure (YOE) dollars (Table 9). YOE-dollar cost estimates include inflation to the date of the expenditure, while dated-dollar cost estimates reflect prices in the given fiscal year. Cost estimation was completed following FTA methodology using standard cost categories (SCC) for transit projects. The SCC are a standardized breakdown of common elements that make up the capital cost for a transit

project. Cost estimates were originally completed in 2006 dollars during the Alternatives Analysis phase of the Project, then updated and adjusted for inflation to 2009 and YOE dollars for the Final EIS. Capital costs for only the portion of the corridor Koko Head of Iwilei are shown for each SCC in Table 10 to detail the differences in cost between the alternatives that are shown in Table 9. Costs for the maintenance and storage facility and vehicles are project wide; therefore, they are not calculated for individual sections of the Project.

Table 9. Capital Costs Excluding Finance Charges

Capital Costs	The Project	Beretania Street Tunnel	Difference
2006 $M	4,190	4,840	650
2009 $M	4,280	5,030	750
YOE* $M	5,120	6,080	960

* Year of Expenditure

2009 and YOE cost values for the Project are from the Final EIS, Table 6-1. 2006 project cost values are from the Alternatives Analysis, Table 5-1. Values for the Beretania Street Tunnel Alternative were calculated using the same methodology and assumptions. All costs are rounded to the nearest 10 million.

Table 10. Standard Cost Categories Comparison of Alternatives Koko Head of Iwilei (2006 $M)

SCC	Category Description	The Project*	Beretania Street Tunnel*
10.0	Guideway and Track	$133	$340
20.0	Aerial & Underground Stations	$46	$223
30.0	Yards, Shops, Admin Facilities	Not Included	Not Included
40.0	Sitework & Special Conditions	$136	$103
50.0	Systems	$24	$39
	Sub-total Construction Costs (SCC 10 – 50)	$339	$705
	Construction Contingency (SCC 10 – 50)	$98	$202
	Other Construction Cost Adjustments (including GET)	$24	$49
60.0	ROW, Land, Existing Improvements	$33	$12
	ROW Contingency (SCC 60)	$17	$6
70.0	Vehicles	Not Included	Not Included
80.0	Soft Costs	$138	$287
90.0	Contingency (Project Reserve)	$39	$76
Total Alternative Costs		$688	$1,337

*All values are in millions of 2006 dollars

Source: Updated from the Honolulu High-Capacity Transit Corridor Project Final Capital Costing Memorandum (DTS, 2006)

According to projections from the Final EIS, which have been supported by the execution of a Full Funding Grant Agreement between HART and the FTA, $5,544 million (YOE) is the total of anticipated available funds from all sources to construct the Project (Table 6-4 of the Final EIS). In addition to capital costs, the funds must also cover interest and finance charges, estimated in the Final EIS to total $398 million (YOE) for the Project. The 19-percent increase in project costs

(YOE) for the Beretania Street Tunnel Alternative would be greater than all available funding sources and would exceed contingencies.

During the December 12, 2012 remedy hearing before Judge Tashima, plaintiffs suggested that the additional costs of a tunnel could be offset by shortening the system at the ‘Ewa end. Shortening the system to end at the Leeward Community College Station, which is adjacent to the maintenance and storage site, would reduce project cost by approximately $580 million in 2009 dollars. According to Figure 3-10 of the Final EIS, 23,680 daily boardings (20 percent of all rail boardings) are projected at stations that would be eliminated by shortening the system to Leeward Community College.

Further shortening the alignment at the ‘Ewa end, so that it does not reach Leeward Community College, would prevent the system from being operable because it would not reach the maintenance and storage site (Figure 1). Other potential maintenance and storage site options are located even farther ‘Ewa of the selected site [Section 2.5.8 of the Final EIS/4(f)].

Shortening to Leeward Community College would not save the needed $750 million (2009 dollars), it would have a major effect on system ridership and would not meet the Purpose and Need element related to improving access to planned development to support City policy to develop a second urban center because the shortened system would fail to reach the ‘Ewa plain. Transit from that region would continue to be limited to unreliable bus service operating in mixed traffic. Shortening the system in such a way would not be prudent because such major changes to the project would make it unreasonable to proceed with the project in light of the project’s purpose and need.

3.5.5 Unique Problems or Unusual Factors

The fifth test for prudence is if the alternative would cause unique problems or have unusual factors. The Beretania Street Tunnel Alternative would delay system opening by approximately two years. The cost of the delay has been captured in the year of expenditure cost estimate, but the delay in benefits to system users would be an additional impact.

3.5.6 Cumulative Consideration of Factors

The final test for prudence is if the alternative would involve multiple factors that are individually minor but would cumulatively cause unique problems or impacts of extraordinary magnitude. The use of other Section 4(f) properties; settlement risks from tunnel construction; environmental effects related to visual, historic architecture, and traffic and business access disruption during construction; delayed benefits from the system; and the extraordinary increase in the cost of the alternative all contribute to the imprudence of the Beretania Street Tunnel Alternative. Cumulatively, the severe environmental effects and extraordinary

increase in the cost of the alternative make the Beretania Street Alternative not prudent.

3.6 Overall Feasibility and Prudence of the Beretania Street Tunnel Alternative

The use of other Section 4(f) properties; settlement risks from tunnel construction; environmental effects related to visual, historic architecture, and traffic and business access disruption during construction; and delayed benefits from this alternative would contribute to the imprudence of the Beretania Street Tunnel Alternative. The overall extraordinary increase in the cost of the alternative would be the overwhelming factor making the alternative imprudent.

3.7 Least Overall Harm

An avoidance alternative is one that completely avoids all Section 4(f) property. The Beretania Street Tunnel Alternative is not an avoidance alternative. An alternative that uses some Section 4(f) property is evaluated to determine whether it causes the least overall harm [Section 1.2.3 of this Draft Supplemental EIS/4(f)]. Least overall harm analysis does not apply to alternatives that are not prudent.

The Beretania Street Tunnel Alternative has been demonstrated to be imprudent [Section 3.6 of this Draft Supplemental EIS/4(f)]; as a result, the least overall harm standard does not apply. Nonetheless, to further consider differences between the Project and the Beretania Street Tunnel Alternative, the relative severity of each alignment's impact has been compared from a least overall harm perspective. The factors considered in the least overall harm analysis are detailed in Section 1.2.3 of this Draft Supplemental EIS/4(f). Neither alternative would have any Section 4(f) use of parks in this portion of the corridor; therefore, the lease overall harm analysis is limited to historic properties.

3.7.1 The Ability to Mitigate Adverse Impacts of each Section 4(f) Property (including any measures that result in benefits to the property)

The Project resulted in a Section 106 programmatic agreement to mitigate adverse effects to historic properties. Mitigation includes National Register nomination forms for each historic property found to be adversely affected through the Section 106 process, including all properties the Project would use. Mitigation also includes historic property documentation of the OR&L Station and Document Storage Building, Dillingham Transportation Building, and the HECO Downtown Plant/Leslie A. Hicks Building. General mitigation for overall project-related effects includes $2 million for an historic preservation program, in addition to historic context studies, cultural landscape reports, educational and interpretive programs, material, and signage.

Were the Beretania Street Tunnel Alternative selected as the build alternative, the programmatic agreement would be amended to mitigate effects to the newly affected historic resources. There are more historic resources along the Beretania Street Tunnel Alternative than the Project. Based on the effect determinations for the Project, even with mitigation, the effect on these resources would not be less than adverse under Section 106.

The ability to mitigate adverse effects for both alternatives would be about the same, but mitigation for the Beretania Tunnel Street Alternative could be greater than for the Project.

3.7.2 The Relative Severity of the Remaining Harm, after Mitigation, to the Protected Activities, Attributes, or Features that Qualify Each Section 4(f) Property for Protection

Table 11 summarizes impacts to historic properties for both alternatives after all possible planning to minimize harm. The Project would create unique uses of five Section 4(f) properties within this portion of the corridor, all of which are historic properties. The impacts described in the Final EIS/4(f) are the result of all possible planning to minimize harm (see definition in 23 CFR 774.17). All possible planning to minimize harm from the Beretania Street Tunnel Alternative, pursuant to 23 CFR 774.3(a)(1), is described in Section 3.3.

The Project's permanent and construction impacts would use land from historic properties, but it would not alter or physically affect any historic buildings or contributing elements to the historic properties. The Project would have adverse visual and setting effects to the historic buildings and contributing elements to the historic properties. Although the project would directly use property from the OR&L property, Chinatown Historic District, the Dillingham Transportation Building, and the HECO Downtown Plant/Leslie A. Hicks, combined uses of the parcels would be 39,600 square feet and there would be no direct use of any contributing buildings (Figure 26 and Figure 27).

The Beretania Street Tunnel Alternative would create unique uses of four Section 4(f) properties. Both alternatives would impact the historic properties comprising the OR&L property, but in significantly different ways. For the Beretania Street Tunnel Alternative, permanent and construction impacts would use a total of 163,200 square feet. A majority of that use would result from construction impacts to 141,100 square feet at the OR&L property. Cut-and-cover construction of the Ka‘aahi Station would use the NRHP-listed OR&L Terminal Building and OR&L Office/Document Storage Building as well as the NRHP-eligible former filling station on the same property. Permanent impacts at the King Florist Building would demolish the historic resource, which is likely NRHP-eligible. Table 11 summarizes the remaining harm to Section 4(f) properties for both alternatives.

Table 11. Comparison of Remaining Harm Between Alternatives

Resource	Significance	Beretania Street Tunnel Alternative		The Project	
		Impact	Type of Use	Impact	Type of Use
OR&L Office/ Document Storage Building and Terminal Building	NRHP-listed historic property	Removal, relocation, or alteration to support the OR&L Office/Document Storage Building in place during construction. Substantial disturbance including loss of access to the OR&L Terminal Building during construction. Permanent station entrance within boundary of the historic property.	Direct use	Construction of guideway within a transportation easement within the boundary of the historic property.	Direct use
Former filling station on OR&L property	NRHP-eligible historic property	Removal, relocation, or alteration to support facility in place during construction. Permanent station entrance within boundary of the historic property.	Direct use	Construction of guideway within a transportation easement within the boundary of the historic property.	Direct use
Chinatown	NRHP-listed historic district	Constriction within roadway right-of-way inside boundary of historic district.	None	Permanent station entrance within a non-contributing vacant parking lot within the historic district boundary.	Direct use
Dillingham Transportation Building	NRHP-listed historic property	None	None	Permanent station entrance within a non-contributing modern plaza within the boundary of the historic property.	Direct use
HECO Downtown Plant/Leslie A. Hicks	NRHP-eligible historic property	None	None	Demolition of a modern non-contributing ancillary addition and construction of a permanent station entrance within boundary of the historic property.	Direct use
McKinley High School	NRHP-listed historic property	Permanent station entrance within a non-contributing open space within the boundary of the historic property.	Direct Use	None	None
King Florist	NRHP-eligible historic property	Demolition of resource and use of property for a permanent station entrance.	Direct use	None	None
Summary of use of contributing historic elements		Demolition, removal, relocation, or alternation of three historic properties. Direct use of four Section 4(f) properties.		Use is limited to non-contributing elements of historic properties. Direct use of five Section 4(f) properties.	

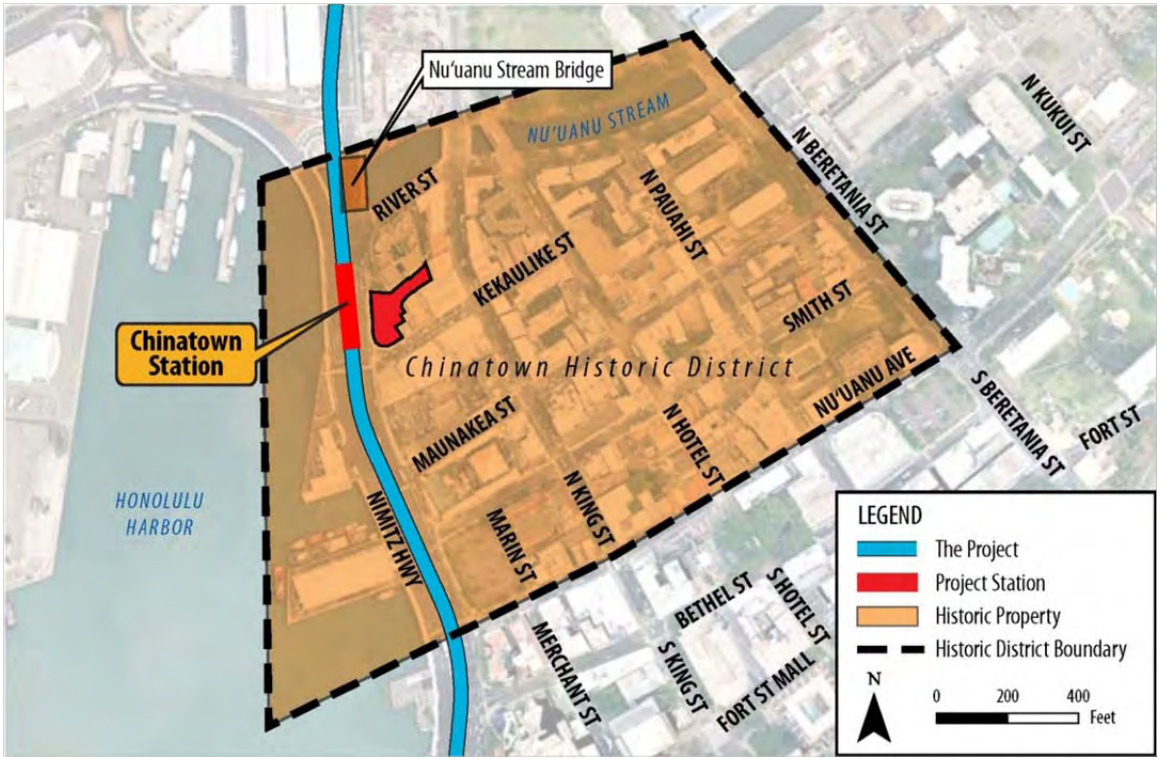


Figure 26. Section 4(f) Use by the Project in the Chinatown Area

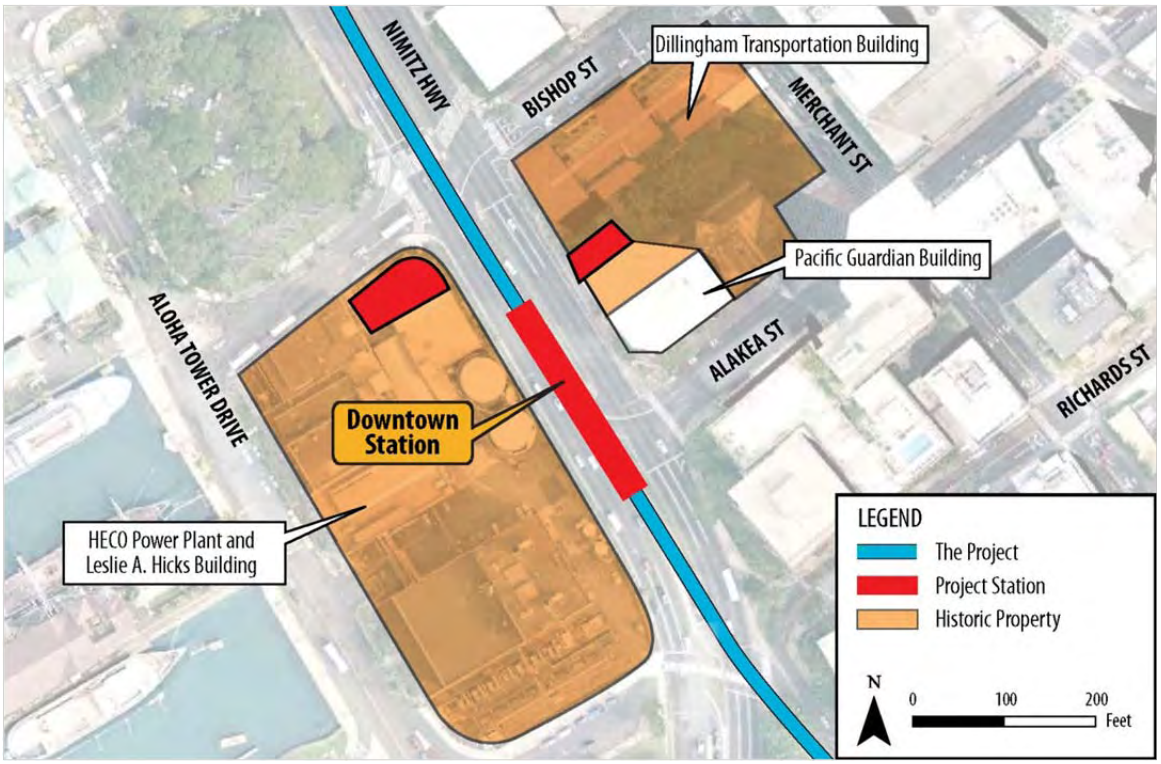


Figure 27. Section 4(f) Use by the Project in the Downtown Area

The Project would have the least remaining harm, because it has no impacts to historic buildings or contributing elements of historic properties. The Beretania Street Tunnel Alternative would use four historic properties and would have over 110,000 square feet more construction impact within historic properties.

3.7.3 The Relative Significance of Each Section 4(f) Property

The historic 4(f) properties used by the Project are OR&L Office/Document Storage Building and Terminal Building, former filling station on the OR&L property, Chinatown Historic District, the Dillingham Transportation Building, and the HECO Downtown Plant/Leslie A. Hicks parcel. The OR&L Terminal and Documents Storage Buildings, Chinatown, and the Dillingham Transportation Building are listed in the NRHP. The effort committed to list these resources in the NRHP is a demonstration of their relative significance as historic properties in Honolulu. The portions of each property being used are non-contributing elements and, in the case of Chinatown and the Dillingham Transportation Building, the areas date outside each property's period of significance. The HECO Downtown Plant/Leslie A. Hicks Building is not currently listed on the NRHP but has been determined eligible for nomination. The impact would occur in a non-contributing, out-of-period extension to the original building.

The historic properties that the Beretania Street Tunnel Alternative would use are the OR&L Office/Document Storage Building and Terminal Building, former filling station on the OR&L property, McKinley High School, and the King Florist Building. Both the OR&L Office/Document Storage Building and Terminal Building, and McKinley High School are listed in the NRHP. The OR&L property also contains the individually eligible former filling station. The King Florist Building was built in 1945 and was identified during the Alternatives Analysis (DTS 2006) as potentially eligible for the NRHP.

The five historic Section 4(f) properties used by the Project are significant as demonstrated by their listing in the NRHP. Along the Beretania Street Tunnel Alternative, two of the four properties that would be used are NRHP-listed.

3.7.4 The Views of the Official(s) with Jurisdiction over Each Section 4(f) Property

The official with jurisdiction over historic properties is the SHPO. The SHPO views on the Project's impacts are reflected in the Project's PA, in which the SHPO concurred with the FTA's "adverse effect" finding under Section 106 of the NHPA for the four properties with Section 4(f) uses. The only exception to that is the King Florist Building, which was not included in the Section 106 consultation because it would not have been used by the Project. It is likely the SHPO would concur with a determination of eligibility and adverse effect to the property based on its age, integrity, and similar significance to other properties on which the SHPO concurred.

Because the project elements that would cause impact are about the same between alternatives, it is unlikely that officials' views would vary significantly between the alternatives.

3.7.5 The Degree to which Each Alternative Meets the Purpose and Need of the Project

Each alternative's performance regarding purpose and need is described in Section 3.5.1 of this Draft Supplemental EIS/4(f). The alternatives are about equal in the degree to which they meet purpose and need.

3.7.6 After Reasonable Mitigation, the Magnitude of any Adverse Impacts to Resources Not Protected by Section 4(f)

This Draft Supplemental EIS/4(f) provides a comparison of social, economic, environmental, and community impacts that result from both alternatives in Section 3.5.3. Section 106 effects to historic architecture and construction impacts would be substantially greater for the Beretania Street Tunnel Alternative.

There are 15 historic properties adversely affected by the Project in the area Koko Head of Iwilei. By applying the same logic to determine NRHP eligibility as applied in the Final EIS, the Beretania Tunnel Street Alternative would affect 47 historic properties (Table 8). Effect determinations have not been made for the Beretania Tunnel Street Alternative, but it has greater potential to affect historic properties under Section 106 of the NHPA.

Section 3.5.3 also discusses construction impacts. Tunnel construction would be more costly and cause construction impacts at both portals (near Ka‘aahi and Alapai Transit Center) as well as cut-and-cover construction of both subsurface stations. Construction techniques for the Beretania Tunnel would take at least two years longer than for the Project.

At Fort Street Station, the entire Beretania Street roadway right-of-way would have some type of utility relocation trenches from approximately Smith Street (in Chinatown) to Fort Street Mall and extend down about 200 feet on both the mauka and makai sides of Nu‘uanu, Bethel, and Fort Streets. Beretania Street, Nu‘uanu Avenue, and Bethel Streets may need to be temporarily closed during off-peak periods during utility relocations and installation of heavy equipment. Entire street closures would not affect more than one street at a time. Two lanes of traffic on Beretania Street may need to be closed during peak periods for several months to install retaining wall supports.

For the Koko Head portal, construction would require the same off-peak roadway closure requirements; for Beretania Street, Alapai Street, and Punchbowl Street, there would be a two-lane closure on Beretania Street during peak periods. The

City's underground parking between the driveway extension of Hotel Street and Beretania Street would be closed during construction of the Koko Head tunnel portal. The vacant parcel on the 'Ewa side of the newly constructed Alapai Bus Transit Center could be used as a laydown area.

After reasonable mitigation, the Beretania Tunnel Street Alternative would have a greater magnitude of adverse impacts regarding historic architecture, construction duration, and construction-related traffic impacts. Impacts to other non-Section 4(f) resources discussed in the EIS would be different for each alignment but generally equal in magnitude.

3.7.7 Substantial Differences in Costs among the Alternatives

Section 3.5.4 of this Draft Supplemental EIS/4(f) discusses differences in costs between the two alternatives. As detailed above, the Beretania Street Tunnel Alternative would cost about $650 million (2006 dollars) more than the Project, which translates to $960 million more in year of expenditure (Table 9). As described in Section 3.5.4, the 19-percent increase in project costs (YOE) for the Beretania Street Tunnel Alternative would be greater than all available funding sources and would exceed contingencies. No additional sources have been identified that could fund the $960 million (YOE) cost increase.

3.7.8 Summary

The least overall harm analysis focuses on seven factors that must be balanced to identify the alternative that causes the least harm in light of the Section 4(f) statute's preservationist purpose. This analysis shows that, on balance, the Project alternative causes the least overall harm for the reasons summarized in Table 12. Remaining harm to Section 4(f) properties from impacts to two contributing elements and three historic properties, substantial differences in cost, construction impacts, and impacts to historic architecture tip the balance in favor of the Project.

Table 12. Summary of Least Overall Harm

Factor	Least Harm Alternative	Comments
Ability to mitigate	About equal	Either alternative would end in specified mitigation per Section 106. The Beretania Alternative might require more mitigation than the Project owing to more historic properties and more parks.
Remaining harm	The Project	Project uses are minor uses from non-contributing elements to historic properties. Beretania uses would include removal, relocation, or alteration to support to two specific resources at the OR&L property and require demolition of the King Florist Building.
Relative significance	Beretania Street Tunnel Alternative	The Project uses more NRHP-listed non-park properties.
View of officials	About equal	Impacts to historic properties from either alternative would end in specified mitigation, and neither alternative would result in a direct use of parks. Given the similarity of the guideway in both alternatives, the impacts would be the same nature and type. All that would vary is the nature of the affected resource.
Purpose and need	About equal	Each alternative performs similarly regarding purpose and need.
Non-Section 4(f) impacts	The Project	While potential for most impacts discussed in the Final EIS/4(f) are different but generally equal, potential impacts to historic architecture and construction impacts are more severe for the Beretania Alternative.
Substantial difference in cost	The Project	The Beretania Alternative would cost $960 million more than the Project.

4 Mother Waldron Neighborhood Park and Playground

The Court's Summary Judgment Order dated November 1, 2012, ordered a reconsideration of the no-use determination for Mother Waldron Neighborhood Park, taking full account of evidence that the Project will significantly affect the park.

4.1 Description of the Property

Mother Waldron Neighborhood Park is a 3.4-acre urban park bounded by Coral, Halekauwila, Cooke, and Pohukaina Streets (Figure 28). Portions of the park are owned by the City and County of Honolulu, State of Hawai'i, and Hawai'i Community Development Authority (HCDA), a State agency. The park is managed and maintained by the City and County of Honolulu Department of Parks and Recreation.

Mother Waldron Playground is the 1.5-acre remnant of a 1.8-acre historic playground site built by the Works Progress Administration in 1937. The remaining portion of the original playground is entirely located within the current boundary of Mother Waldron Neighborhood Park (Figure 28). Between 1991 and 1993, Halekauwila Street was realigned through the mauka portion of Mother Waldron Playground, approximately 90 feet makai of its original alignment, to make the street continuous between Keawe Street and Cooke Street.

The park was expanded in the 'Ewa and Koko Head directions by incorporating previously industrial property and the adjacent right-of-way for Coral Street and Lana Lane. The expanded area outside the boundary walls is a combination of grass-covered and paved open-space. Along Pohukaina Street, road widening associated with district improvements forced the makai perimeter wall and benches to be removed and reconstructed approximately 5 to 10 feet inside the playground's original boundary. To open Mother Waldron Playground to its newly acquired 54,000 square feet, a boundary wall running along Lana Lane and intersecting with the rear of the comfort station, which had separated the original playground from the adjacent commercial development, was removed and never replaced. The original handball court was also removed and never replaced.

The Halekauwila Street realignment eliminated approximately 12,700 square feet of the original playground area. The playground area was reconfigured to fit into the smaller space, including removal of a basketball court, volleyball court, parallel bars, swings, see-saw, and sandbox. The Koko Head boundary wall was removed mauka of the comfort station, and the mauka boundary wall was reconstructed in a modified configuration approximately 90 feet makai of its original location (Figure 29), substantially reducing the area of the playground.

Figure 28. Mother Waldron Neighborhood Park Vicinity

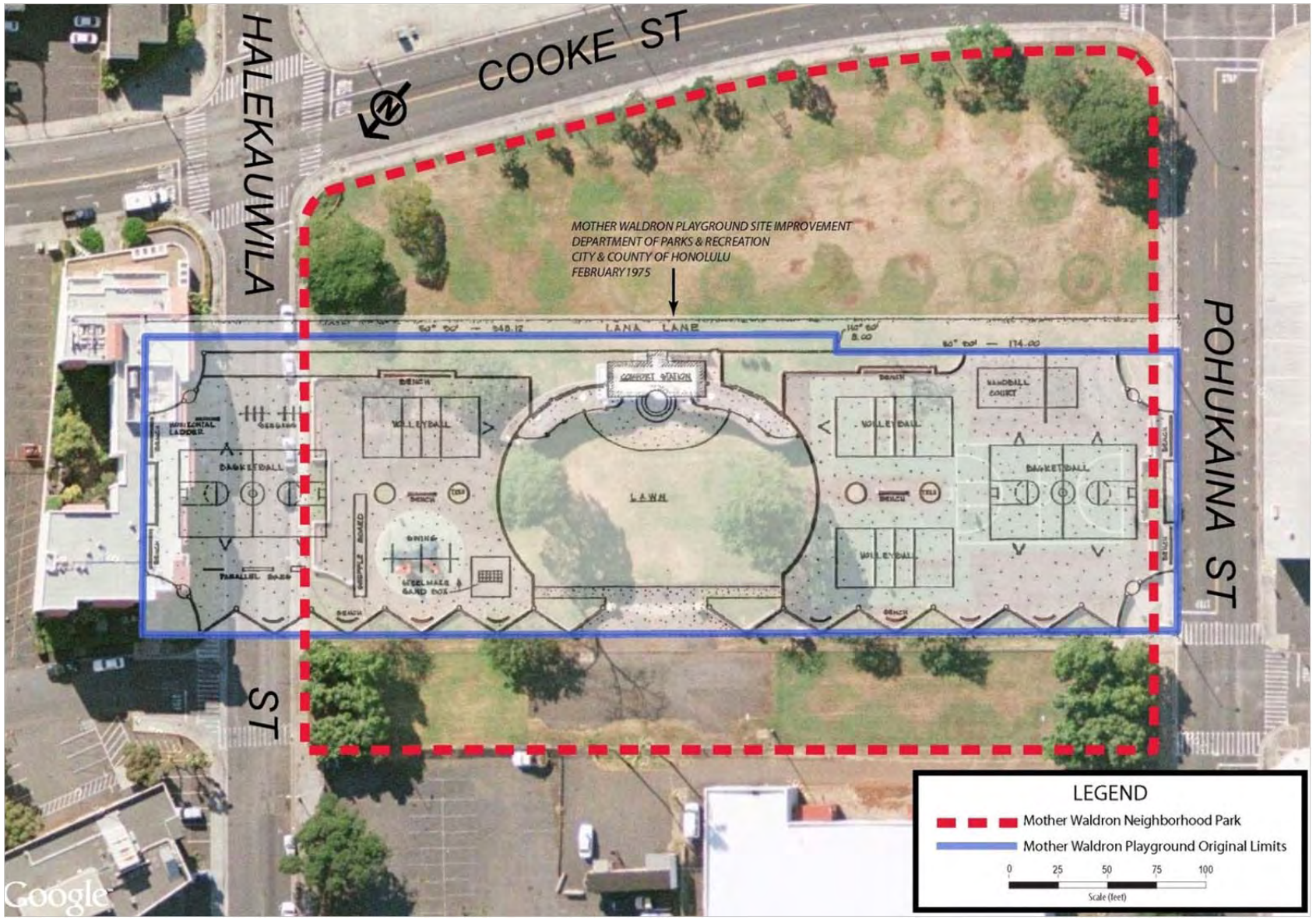


Figure 29. Original Mother Waldron Playground and Current Mother Waldron Neighborhood Park Boundaries

The playground area in the mauka portion of the park was again reconfigured around 2006, adding a children's climbing structure.

The park is located in a mixed commercial, residential, and industrial area of Kaka'ako. The park is surrounded by open lots, a large surface parking lot, warehouses, and low- and high-rise residential buildings. Park improvements were made in the Coral Street corridor portion of the park in 2011. Current mauka, 'Ewa, makai, and Koko Head views from the park are shown on Figure 30.

Every building adjacent to the original playground has been demolished or replaced. The roadways on two sides of the playground have been assimilated into the current park. Halekauwila Street has been realigned to within the original boundary of the park (Figure 28 and Figure 31) on the mauka end Pohukaina Street has been widened, relocating the makai boundary wall and pushing the sidewalk into the park on the makai end.

4.1.1 Mother Waldron Neighborhood Park Recreational Activities, Features, and Attributes Eligible for Protection under Section 4(f)

The current recreational features of the Mother Waldron Neighborhood Park include a playground with a climbing structure, basketball courts, volleyball courts, benches, and open grass areas that are used for informal sporting activities, picnicking, and daytime resting. Students from Voyager Public Charter School use the park. A farmer's market with a typical attendance of 5 vendors and 75 customers per week is held at the park on Monday mornings.

The City and County Department of Parks and Recreation confirmed that basketball, playground, picnicking, and volleyball are the activities designated for the park (DPR 2012). Between 2009 and 2012, the Department of Parks and Recreation has permitted various organized uses of the park (Table 13).

A survey of park activity was conducted between November 9, 2012, and November 20, 2012. Eleven spot-visits were completed during park open hours and a single visit during park closure hours (Table 14). By far, the primary use of the park is by a "resident population" during park-open hours, who have sleeping mats, blankets, food coolers, bags, and wash and dry laundry around the comfort station. Nighttime observation indicated that this group of daytime users leaves the park during its hours of closure. Use by this resident-population is concentrated around the comfort station, is opportunistic as to the availability of the park, and is not sensitive to setting.

Figure 30. Existing Views from Mother Waldron Neighborhood Park

Original photograph did not include scale.

Figure 31. 1952 USGS Aerial Photograph of Mother Waldron Playground and Surrounding Area

Walkers, joggers, and dog walkers using or crossing the park were the second-most frequently observed use, followed by basketball, play-structure, and bicycling. Observed organized sporting events included a youth sports day and coaching of youth basketball skills. The majority of recreational use occurs in the makai portion of the park. Only the limited use of the play-structure is located adjacent to Halekauwila Street. Non-recreational uses included a weekly farmer's market and food bank delivery to neighborhood elderly.

With the continued urbanization and increased residential density in the vicinity of Mother Waldron Neighborhood Park, the use of the park is anticipated to increase. The increased neighborhood activity may, over time, displace the current resident population, which accounts for the majority of current park use.

Table 13. Permitted Uses and Events at Mother Waldron Neighborhood Park (2009–2012)

Date(s)	Organization/Event	Times	Facility/Area	Attendance
8/2/2009	USA Track and Field/Race staging	Sunday 2:30–5:00 pm	Field/restrooms	80
12/30/2010	Plug in America/Green-Renewable Energy Event	6:00 am–7:00 pm	Field/restrooms	250
8/2011–present	Voyager Charter School/P.E. classes	M–F/8–2 pm	Field/courts/restrooms	100
1/2012–6/2012	Ke Aloha Hoʻokahi Preschool/P.E. activities, picnics	Various	Field/restrooms	35
2/2012–4/2012	Hawaiʻi Jokgu Association/Jokgu League	Sundays 2:00–7:00 pm	Volleyball court/restrooms	25
3/17/2012	Hawaiʻi Jokgu Association/Jokgu Tournament	7:30 am–7:00 pm	Volleyball court/restrooms	45
Various (1–2 times/year)	Hawaiʻi 5-0/film staging, crew rest area	5:00 am– 5:00 pm	Field/parking/restrooms	100

Table 14. Observed Use of Mother Waldron Neighborhood Park

Date and Time	Basketball	Play-structure	Walking/ Jogging	Sitting/ Sleeping	Organized Sport	Bicycling	Other Non-recreation
Nov. 9, 2012, 5 pm			4	8			
Nov. 10, 2012, 9 am			1	7			3 maintenance/construction
Nov. 11, 2012, 2 pm	4	1	1	15	36		
Nov. 12, 2012, 11 am			1	21			8 farmers' market (low turn-out on holiday)
Nov. 13, 2012, 7 am			2	10		1	18 awaiting food bank
Nov. 13, 2012, 6 pm	1			11			
Nov. 14, 2012, 3 pm			1	15		1	
Nov. 15, 2012, 7 pm				8		2	
Nov. 16, 2012, 1 pm	18	3	2	10			1 park maintenance
Nov. 18, 2012, 11 pm				2			
Nov. 19, 2012, 12 pm	1	2	6	10			
Nov. 20, 2012, 4 pm	2	3		14			
Total	26	9	18	131	36	4	30 various activities

4.1.2 Historic Elements Eligible for Protection under Section 4(f)

Mother Waldron Playground was listed on the Hawai'i Register of Historic Places on June 9, 1988 (prior to the Halekauwila Street realignment) as an element of the thematic group "City & County of Honolulu Art Deco Parks." The state listing noted the park as significant for its associations with the playground movement, both nationally and locally, as well as its architectural and landscape design by Harry Sims Bent (Criterion A of the NRHP). This park is considered one of Bent's best playground designs and a good example of Art Deco/Art Moderne styles in hardscape (Criterion C of the NRHP). The state listing identified recreation and architecture as areas of significance. Setting, feeling, and association are not identified as significant.

The Programmatic Agreement (PA) pursuant to Section 106 of the National Historic Preservation Act of 1966 (as amended) between the FTA, SHPO, U.S. Navy, and Advisory Council on Historic Preservation (ACHP) stipulated that the FTA will complete NRHP nominations for adversely affected historic properties. The FTA has completed the nomination for listing Mother Waldron Playground on the NRHP. The draft nomination was submitted to the SHPO on April 17, 2013, for review.

As discussed in Section 4.1, the original Mother Waldron Playground has been highly altered. Remaining historic elements of the original playground include the Art Deco/Art Moderne-style comfort station, remaining portion of the 'Ewa boundary wall, internal walls and benches, and the general layout of the makai portion of the playground. The entire mauka end of the park, adjacent to the Project, has been altered. Boundary walls were removed and subsequently reconstructed in a different location. A perimeter wall and benches nearly identical to the original were reconstructed along Halekauwila Street, but the wall now connects to the original low wall topped by terracotta tile that remains extant; the tile was not used on the replacement wall. There is no longer a convex curved entrance at the original playground's east corner as a result of the alterations. The playground layout and size also have been altered.

Considering the significant changes to the playground, the Significance Evaluation for the draft NRHP nomination concludes that:

> *Mother Waldron Playground is eligible for the National Register of Historic Places under Criterion A for its association with the national playground movement, which aimed to provide supervised play and character-molding opportunities. The property correlates with the rise of playground construction in urban areas throughout the United States.*

Mother Waldron Playground is not eligible under Criterion B. Although the park is named in honor of Margaret "Mother" Waldron, the property is not associated with her productive life or her lasting contributions to the Kaka'ako community.

This property is also eligible under Criterion C for its architectural and landscape design by Harry Sims Bent. The property displays a streamlined Art Moderne appearance with some Art Deco elements, a modern approach and a display of Harry Sims Bent's desire to create a pleasing environment for the park's users.

The boundary of the NRHP-eligible historic property is the current boundary of the park, which contains both historic contributing and non-historic, non-contributing elements. The period of significance for Mother Waldron Playground spans from its construction date in 1937 until 1945, when supervised play ceased and Honolulu's Board of Parks and Recreation was formed. Effects on non-contributing elements do not constitute an adverse effect to the historic property.

The contributing historic elements include the Art Deco/Art Moderne-style comfort station, the remaining portion of the 'Ewa boundary wall, internal walls and benches, and the general layout of the makai portion of the playground, which constitutes the remaining portion of the recreational landscape that is still in its original configuration (Figure 32).

The structures (walls and benches) on the mauka side of the park have been reconstructed and relocated. As a result, they are not eligible for the NRHP per 36 CFR 60.4, "structures that have been moved from their original locations shall not be considered eligible for the NRHP". The shape and size of the mauka side playground have been revised, and the configuration and equipment have been changed.

In summary, Mother Waldron Playground derives its significance from its historical development and use as a playground and its remaining architectural and landscape design features. The playground retains limited integrity and includes substantial non-historic, non-contributing elements, including recon-figured play areas and moved, altered, and reconstructed walls. The setting, feeling, and association of the park are not part of the playground's historic significance. The use of every surrounding parcel had changed since the playground was developed, diminishing the integrity of setting.

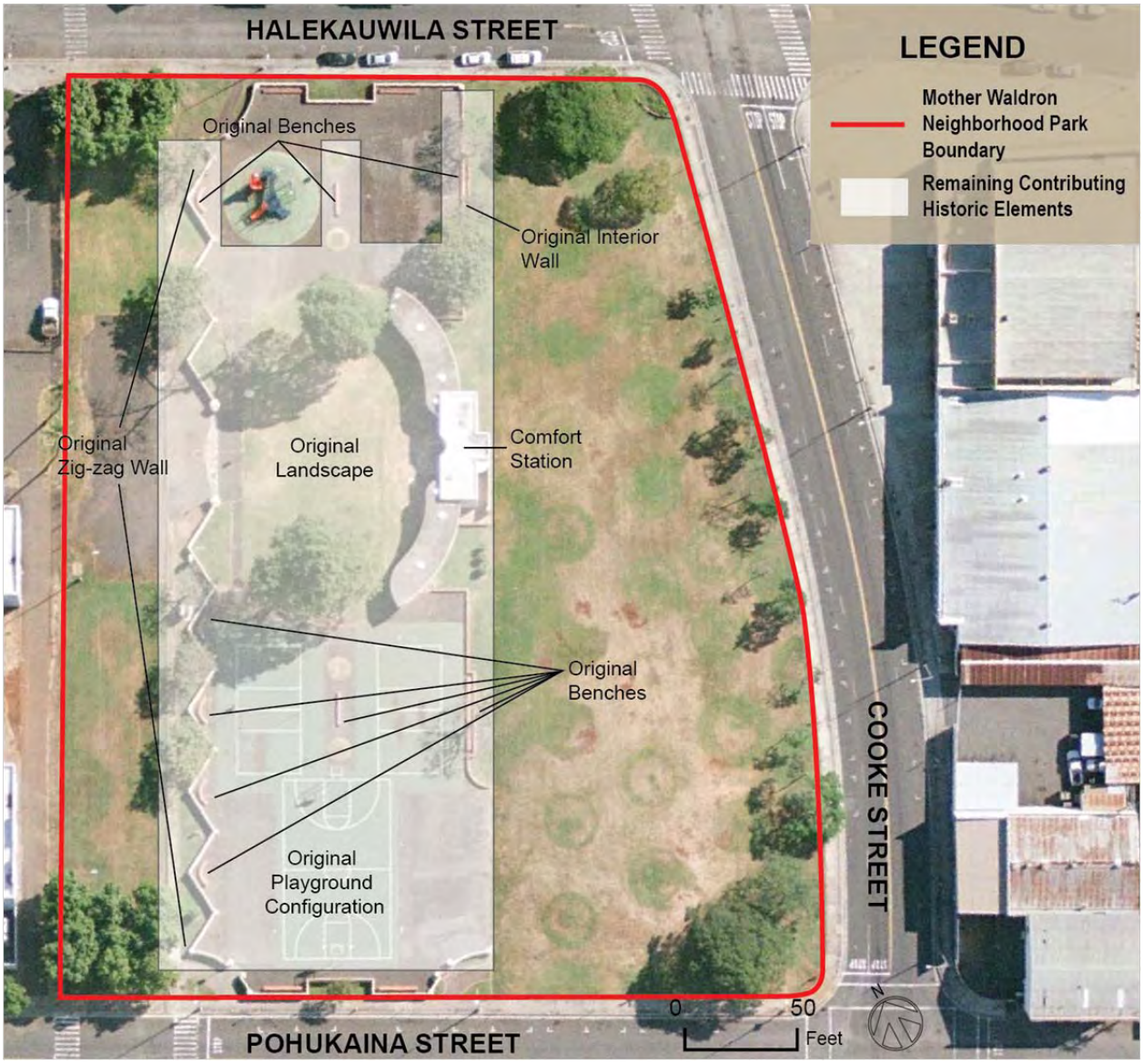


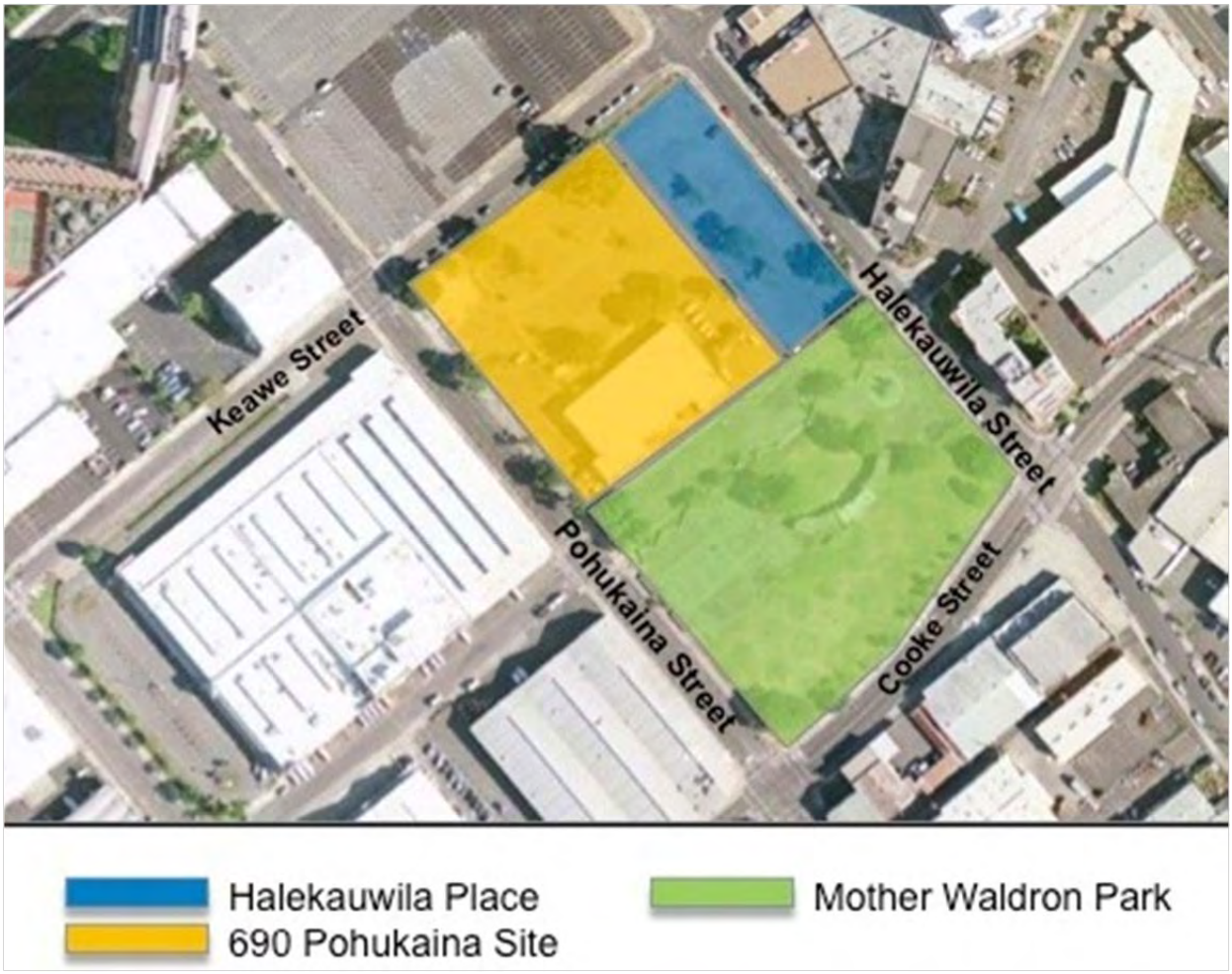
Figure 32. Remaining Contributing Historic Elements to Mother Waldron Playground

4.1.3 Proposed Changes to Mother Waldron Neighborhood Park

HCDA's 2011 Mauka Area Plan (HCDA 2011) envisions substantial mixed-use redevelopment replacing the existing low-rise commercial and industrial uses surrounding the park (Figure 33). HCDA has identified the adjacent parcels 'Ewa of the park for a combination of mid- and high-rise development (Figure 34). The 18-story Halekauwila Place project began construction in early 2013, while the adjacent 690 Pohukaina is in the development process to construct the tallest building in Hawai'i (Figure 35).

Source: Mauka Area Plan, HCDA, September 2011.

Figure 33. Existing and Simulated Future Land Use adjacent to Mother Waldron Neighborhood Park



Source: HCDA 2011 public comment materials on 690 Pohukaina Project. Original graphic does not include a scale. North is at top of page.

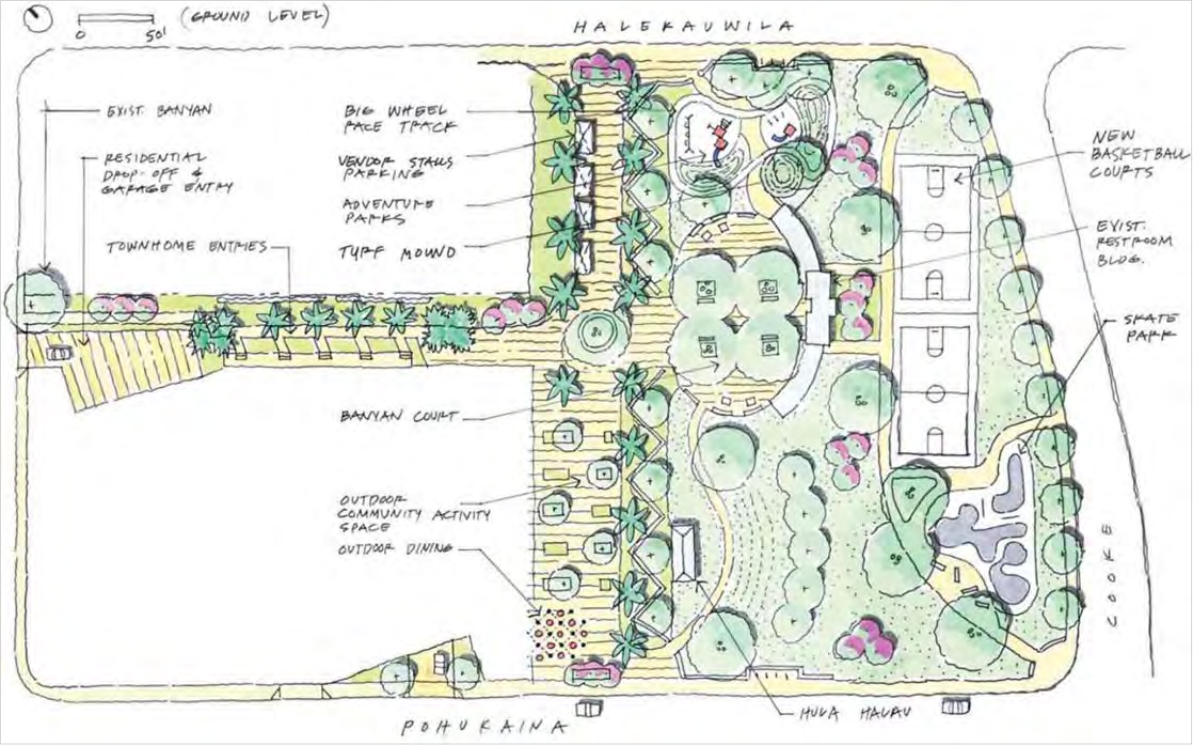
Figure 34. Site Plan for Proposed Development Adjacent to Mother Waldron Neighborhood Park

Source: HCDA 2012 public comment materials on 690 Pohukaina Project.

Figure 35. Proposed 690 Pohukaina Street Project

On December 13, 2012, HCDA announced that it had selected Forrest City to develop the 690 Pohukaina Street project. In its offer, which represents a proposal and not an approved design, Forrest City stated that "*integrated planning and design result in an informed solution that achieves… support for existing transit systems and potential future solutions… and aggressive recreational programming of the adjacent Mother Waldron Park.*" The offer, which was developed with full consideration of the Project, proposes to program Mother Waldron Neighborhood Park "*with uses for all ages; with play areas and a 'big wheel race track' for the very young, basketball courts and a skate park for teens and young adults, and a hula hālau, gracious walking paths, and ample canopy trees.*"

Forrest City's proposal for Mother Waldron Neighborhood Park (Figure 36) includes a complete restructuring of the park's recreational uses, eliminating its historic configuration. The comfort station and 'Ewa boundary wall would be the only retained original historic elements. The park would link Keawe Street and the development through a new "pedestrian plaza." The City and County Department of Parks and Recreation, the entity with jurisdiction of the park, has not approved the proposed concept. The current recreational uses of the park would be changed or relocated within the park. For example, volleyball courts would be eliminated, a skate park and hula area would be introduced, and the basketball courts would be relocated within the park.



Source: Forrest City 2012, Best and Final Offer Mixed-use Transit-oriented Development Project at 690 Pohukaina Street

Figure 36. Forrest City Proposed Site Plan for Mother Waldron Neighborhood Park Programming

4.2 Evaluation of Use of the Property

Section 1.2.1 of this Draft Supplemental EIS/4(f) explains the considerations included in the Section 4(f) evaluation.

4.2.1 Evaluation of Direct Use

The Project is located outside the boundary of Mother Waldron Neighborhood Park (Figure 37). A 32-foot-wide elevated guideway will be constructed along Halekauwila Street (the mauka side of the park), carrying automated trains in

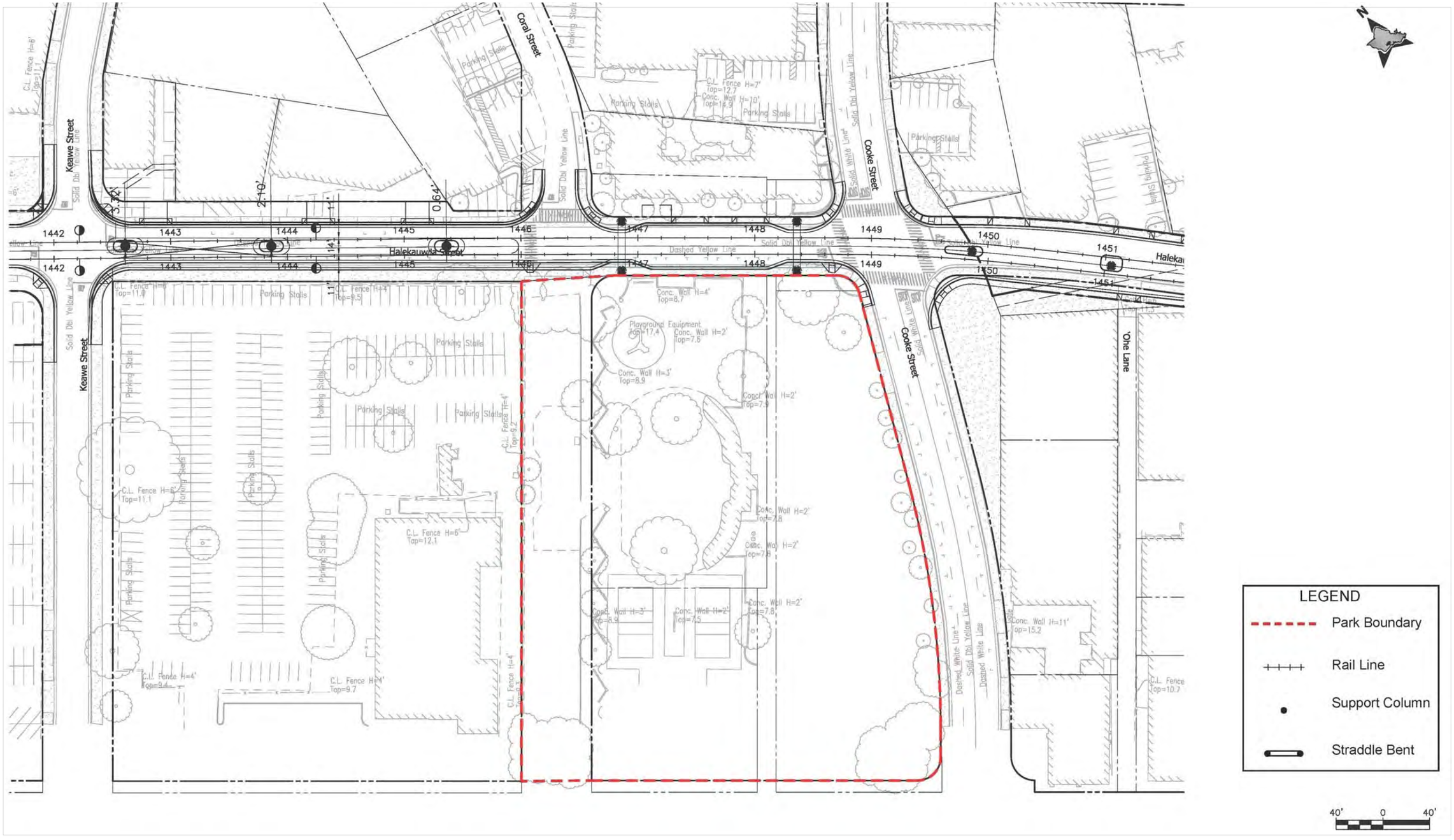


Figure 37. Detail of Honolulu Rail Transit Project in Relation to Mother Waldron Neighborhood Park

each direction between 4 a.m. and midnight. The guideway will include an integrated parapet wall that will partially shield surrounding uses from the passing trains. Adjacent to the park, the guideway will be supported by straddle bents approximately every 150 feet along Halekauwila Street. The straddle bents consist of approximately 6-foot-by-6-foot columns placed behind a relocated sidewalk on each side of the street supporting a beam crossing above the travel lanes. There will be two columns adjacent to the mauka side of the park. The guideway will be centered over the street and carried atop the series of beams (Figure 38).

The edge of the elevated guideway will be approximately 10 feet mauka of the park's edge and its height above the ground will be approximately 30 feet to the bottom and 40 feet to the top of the structure. The edge of the guideway will be located about 50 feet from the playground structure and about 290 feet from the volleyball court. The mauka-most roof edge of the park's Art Deco/Art Moderne-style comfort station is about 100 feet makai of the alignment.

The nearest transit station will be on Halekauwila Street between South Street and Keawe Street (Figure 28), approximately 450 feet 'Ewa of the park. The station will provide a new mode of access to the neighborhood, including park users.

There would be no direct use of Mother Waldron Neighborhood Park and Playground.

4.2.2 Evaluation of Constructive Use

Mother Waldron Neighborhood Park and Playground is protected under Section 4(f) as both a public park and as a historic site. No land in the park will be permanently incorporated into the Project. Thus, there will be no direct use. There will also not be any temporary occupancy of the park. This evaluation considers the potential for constructive use of the park. The park's activities, features, and attributes that qualify the park for Section 4(f) protection are individually considered for its recreational and historic significance.

Noise

The FTA has determined that a constructive use does not occur when the projected operational noise levels of the Project do not exceed the noise impact criteria for a Section 4(f) activity in the FTA guidelines for transit noise and vibration impact assessment.

Figure 38. Existing View and Simulation of Elevated Guideway in Relation to the Mauka Boundary of Mother Waldron Neighborhood Park

Per the Final EIS Figure 4-56, Mother Waldron Neighborhood Park and Playground is a Category 3 Land Use with an existing loudest-hour Leq of 58 dBA. Category 3 land uses include recreational facilities and certain historic sites and parks; therefore, the same noise criteria and assessment is applicable to both the recreational and historically significant aspects of the park. Per the FTA noise impact criteria shown in Figure 4-52 of the Final EIS, a noise impact will occur if the Project generates a noise exposure (the noise generated by the individual project, excluding other noise sources in the environment) of 62 dBA Leq(h) or greater. The Project incorporates sound-reducing features in its design, including a parapet wall along the edge of the guideway that reduces ground-level noise along the entire project length. The noise analysis for the Project found that the future project-generated noise exposure will be 56 dBA Leq(h) during the loudest hour and the Project will not create a noise impact (Table 15). The Leq noise level generated by the Project would be less than the existing environmental noise level at the park; therefore, the Project would have little effect on the cumulative future noise level in the park. The Project-generated noise would be less than the FTA noise impact criteria for a moderate impact.

Table 15. Noise Data for Mother Waldron Neighborhood Park

Attribute	Value
Existing Noise Level	58 dBA Leq
Impact Criteria	62 dBA Leq(h)
Project-generated Noise Exposure	56 dBA Leq(h)
Cumulative Noise Level with Project	60 dBA Leq(h)

Source: Final EIS, Figure 4-56, RTD 2010.
Mother Waldron Neighborhood Park is an FTA Category 3 Land Use for noise impact analysis.

Per 23 CFR 774.15 [see Section 1.2.1 of this Draft Supplemental EIS/4(f)], constructive use does not occur when the projected operational noise levels of the Project do not exceed the noise impact criteria for a Section 4(f) activity in the FTA guidelines for transit noise and vibration impact assessment. Accordingly, the Project will not have a constructive use of Mother Waldron Neighborhood Park and Playground related to noise.

Vibration Impact

Per Section 4.10.3 of the Final EIS, no operational vibration level within the project corridor will exceed the protective FTA criterion of 72 VdB for locations where people sleep. Construction vibration was addressed in Section 4.18.5 of the Final EIS. Only pile driving occurring within 75 feet of sensitive structures was identified to potentially cause vibration damage. No pile driving will occur near Mother Waldron Neighborhood Park and Playground. Accordingly, the Project will not have a constructive use of Mother Waldron Neighborhood Park and Playground related to vibration.

Access

The Project will not affect access to Mother Waldron Neighborhood Park and Playground. Any temporary restriction of access during construction will be limited to the mauka boundary of the park, and access through the other edges of the park will still be possible. The Project will provide an additional mode of access to the park and, in the long term, will improve park access. Accordingly, the Project will not have a constructive use of Mother Waldron Neighborhood Park and Playground related to access.

Ecological Intrusion

Mother Waldron Neighborhood Park and Playground is not a wildlife or waterfowl refuge. Moreover, there are no significant wildlife or waterfowl resources in the vicinity of the park and playground. The park and playground includes grass lawn area, ornamental trees, and landscaping and contains no water features or natural landscaping. Thus, an ecological intrusion is extremely unlikely. Accordingly, the Project will not have a constructive use of Mother Waldron Neighborhood Park and Playground related to ecological intrusion.

Aesthetic Qualities

The FTA has determined that a constructive use occurs when the proximity of a proposed project substantially impairs aesthetic features or attributes of a property protected by Section 4(f), where such features or attributes are considered important contributing elements to the value of the property. Aesthetic impacts are evaluated for three sets of features or groups: park and recreational uses, historic features, and views from residences outside the park.

Effect on Park and Recreational Uses

The City and County of Honolulu Department of Parks and Recreation, the agency with authority over Mother Waldron Neighborhood Park, identified active and passive recreation as significant activities, features, or attributes of the park. These activities are not highly sensitive to visual setting.

The existing visual setting is typical of an urban park environment. Even in the absence of the Project, the setting will continue to urbanize, with high-rise residential buildings currently being developed adjacent to the ‘Ewa boundary of the park (Figure 34). The park does not provide an unspoiled natural setting or provide significant views or vistas (Figure 30). Because recreational uses are the park’s significant attributes, impacts to views from or to the park do not qualify for Section 4(f) protection; therefore, there will be no constructive use related to recreational use.

The elevated guideway will dominate mauka views from the mauka edge of the park (Figure 39). It will be visible, but of similar scale as surrounding buildings, from areas of the park with greater use (Figure 40). Current views are of mid- and high-rise residential and commercial buildings mauka of the park. Views of the Koʻolau Mountains are largely blocked by existing development (Figure 30, Figure 39, and Figure 40), and the guideway will have little additional effect on distant views.

Introduction of the elevated guideway immediately beyond the mauka boundary of the park will not introduce an inconsistent visual element that will substantially diminish the use of the park related to any of the activities, features, and attributes identified as significant to the park. The City and County of Honolulu Department of Parks and Recreation is in agreement that the park will continue to serve future users providing the same activities, features, and attributes available today without substantial impairment.

The guideway will shade the very mauka edge of the park during morning hours throughout the year and extending into early afternoon around the summer solstice. The affected area will be small. At this time of year, most park users are seeking shade, making this effect a minor benefit to park users.

Effect on Historic Features

During the Section 106 historic review process, the FTA determined the eligibility of an effect on historic properties located within the Area of Potential Effects for the Project. In consultation with the SHPO, the FTA determined that the Project will have an adverse effect on Mother Waldron Playground. The Court noted in its November 1, 2012, Order on Cross-Motions for Summary Judgment that the Historic Effects Report observed that the Project's adverse effect will be to the park's setting. The Historic Effects Report states:

> *Mother Waldron Playground is primarily an outdoor designed space, although it does contain a comfort station. Generally, the effects on building settings are different than those on a resource that is primarily an outdoor facility. While these recently constructed adjacent buildings detract from the playground's overall historic setting, the surrounding buildings are separated from the playground by the streets that encircle the playground. Because the guideway would introduce a new element into Mother Waldron Playground's setting in a close proximity, an effect that is particularly apparent to an outdoor resource, there would be an adverse effect. No audible or atmospheric effects to this property were identified.*

Figure 39. Existing View and Simulation Near Elevated Guideway from within Mother Waldron Neighborhood Park

Figure 40. Existing View and Simulation Showing Elevated Guideway from Area of Frequent Use within Mother Waldron Neighborhood Park

The SHPO concurred with this effect determination; measures to mitigate the effect were included in the PA, which was executed between the FTA, the SHPO, the Navy, HART and the ACHP on January 18, 2011. Attachment B to the PA summarized the final effect determination for each property that will be adversely affected by the Project. The text for Mother Waldron Playground states:

> *There is no direct impact to the property. The Project will be about 10 feet mauka of the park's edge, 150 feet makai of the Art Deco/ Art Moderne-style comfort station and elevated about 35 to 40 feet high in this location. The Project will not affect the park's design elements or aesthetic features that contribute to the park's use and enjoyment. However, there will be an effect to setting.*

This determination was made by the FTA and concurred with by the SHPO and included in the PA signed by the ACHP.

The PA required completion of an NRHP nomination for Mother Waldron Playground. During completion of the nomination, significant changes to Mother Waldron Playground were discovered, indicating that the playground retains only limited integrity. The draft NRHP nomination notes that:

> *In 1991–1992, the Hawai'i Community Development Authority undertook street improvements along Halekauwila Street, among others. This realignment of Halekauwila Street required a taking of approximately 12,700 square feet of Mother Waldron Playground on the park's northern end. To mitigate the taking and the subsequent diminished park size, the developed area opposite Lana Lane and to the playground's southeast was removed. Lana Lane, separating the playground from the developed area, was also removed. Mother Waldron Playground was subsequently enlarged by approximately 54,000 square feet toward the southeast. Although this 54,000 square foot area was officially designated as part of Mother Waldron Playground, Coral Street's closure on the park's northwest side was never officially considered part of the park.*

As a result of the taking, the mauka (Halekauwila Street) end of the playground lost its basketball court, perimeter wall, and benches. A perimeter wall and benches nearly identical to the original were reconstructed along Halekauwila Street, but the wall now connects to the original low wall topped by terracotta tile that remains extant; the tile was not used on the replacement wall. There is no longer a convex curved entrance at the original playground's east corner as a result of the alterations.

Along Pohukaina Street, road widening associated with district improvements forced the perimeter wall and benches to be removed and reconstructed approximately 5 to 10 feet inside the playground's original boundary. In order to

open Mother Waldron Playground to its newly acquired 54,000 square feet, a wall running along Lana Lane and intersecting with the rear of the comfort station was removed and never replaced. The original handball court was also removed and never replaced.

Considering the significant changes to the playground, the Significance Evaluation for the draft NRHP nomination concludes that:

> *Mother Waldron Playground is eligible for the National Register of Historic Places under Criterion A for its association with the national playground movement, which aimed to provide supervised play and character-molding opportunities. The property correlates with the rise of playground construction in urban areas throughout the United States.*
>
> *Mother Waldron Playground is not eligible under Criterion B. Although the park is named in honor of Margaret "Mother" Waldron, the property is not associated with her productive life or her lasting contributions to the Kaka'ako community.*
>
> *This property is also eligible under Criterion C for its architectural and landscape design by Harry Sims Bent. The property displays a streamlined Art Moderne appearance with some Art Deco elements, a modern approach and a display of Harry Sims Bent's desire to create a pleasing environment for the park's users.*

In summary, Mother Waldron Playground derives its significance from its historical development and use as a playground and its remaining architectural and landscape design features. The playground retains limited integrity and includes substantial non-historic, non-contributing elements, including reconfigured play areas and moved, altered, and reconstructed walls. The Project would not affect the features of the playground or the architecture and landscape design of the park. The Project would not adversely affect the activities, features, or attributes that make the property eligible for the NRHP.

Effect on Views from Residences Outside the Park

The District Court in November 1, 2012, Summary Judgment Order noted a comment in the record stating that "there would be 'devastating' impacts on seaward views of and over the park from the apartment buildings inland of the guideway." While this is a significant visual impact under NEPA that was disclosed in the Final EIS (Final EIS, Page 4-100), it is not a Section 4(f) use. Impacts that are sufficient to cause an impact under NEPA may not constitute a constructive use under Section 4(f). The Section 4(f) regulations limit constructive use to circumstances where a "project's proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired." [23 CFR 774.15(a)] Thus,

constructive use could only occur if views of and over the park from adjacent apartment buildings were a protected activity, feature, or attribute of the park.

The views of the park from private residences mauka of the park are not important contributing elements to the significant activities, features, and attributes of the park because setting was not the basis of listing the park, either for recreation or as an historic site. In fact, the apartments contributed directly to the alteration of the park's setting and to the fact that the mauka portion of the park is not a contributing feature. When Halekauwila Street was expanded, the street expansion and the apartment buildings were constructed on part of the playground, and the remaining uses and features were altered, moved, and rebuilt.

Summary of Constructive Use Evaluation

The Project will not result in a constructive use of Mother Waldron Neighborhood Park and Playground. The Project will not substantially impair the significant historic features or recreational activities, features, and attributes that qualify for protection under Section 4(f). As a result, there will be no constructive use of the significant recreational and historic activities, features, and attributes of Mother Waldron Neighborhood Park and Playground.

4.2.3 Coordination with Agency with Jurisdiction

The City and County of Honolulu Department of Parks and Recreation noted that Moanalua Community Park (Figure 41) is immediately adjacent to the elevated Pu'uloa Road interchange with Moanalua Freeway (DPR 2013). The interchange ramp is larger, closer to recreational uses, and generates more noise than the rail guideway will generate at Mother Waldron Neighborhood Park. Parks and Recreation staff observed that the area under and immediately adjacent to the elevated ramp, which includes basketball and tennis courts and a children's playground, is well used and benefits from the shade and weather protection provided by the elevated roadway. A field survey was conducted over a period of seven days to confirm the Department of Parks and Recreation's observations (Table 16). During one rainy day, all park users were under the elevated roadway structure. Traffic noise levels were measured at 61 dBA Leq at Moanalua Community Park, which is 5 dBA louder than the projected project-generated level at Mother Waldron Neighborhood Park (Table 15).

Overall, the proximity of the elevated ramp did not substantially diminish the use of Moanalua Community Park, or shift users to parts of the park further from the structure. The types of recreational uses that occur at Mother Waldron Neighborhood Park also occur at Moanalua Community Park with no observed effect from the elevated roadway. These observations further indicate that the presence of an elevated guideway will have no detrimental effects on the recreational use of Mother Waldron Neighborhood Park.

Figure 41. Moanalua Community Park

Table 16. Observed Use of Moanalua Community Park

Distance from Elevated Structure	Number of Park Users Observed
0 to 30 feet	56
30 to 60 feet	15
60 to 90 feet	10
More than 90 feet	18

The Department of Parks and Recreation was provided a draft of this Draft Supplemental EIS/4(f) for review. They concurred with the content and findings of this analysis on May 22, 2013 [Appendix C to this Draft Supplemental EIS/4(f)].

4.3 Avoidance of Impacts to Mother Waldron Playground

In response to public comments, alternatives to avoid the impacts to Mother Waldron Neighborhood Park were considered. Alternatives makai of the park were rejected because a shift to Pohukaina Street would still border the park and a shift to Auahi Street would not be able to transition back to the terminal station at Ala Moana Center as a result of recent development of the Ward Village Shops. An alignment further mauka was considered along Queen Street (Figure 42).

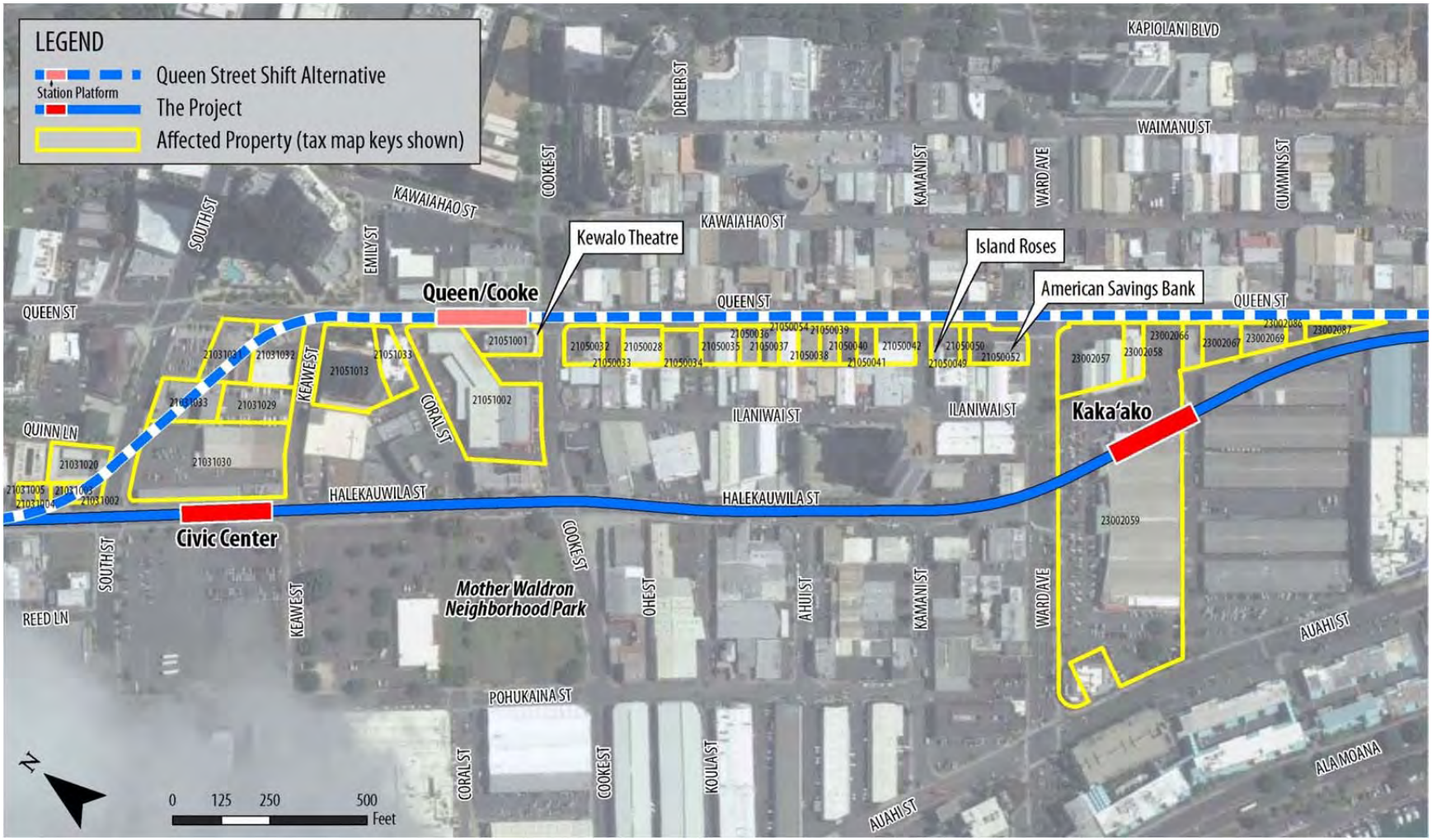


Figure 42. Queen Street Shift Alternative Evaluated to Reduce Impacts to Mother Waldron Neighborhood Park

Queen Street has a narrow 60-foot right-of-way between Coral Street and Ward Avenue, which would have to be widened to accommodate the elevated guideway. As a result, the Queen Street Shift Alternative would require full or partial property acquisition from 39 parcels, including three historic properties: Kewalo Theatre, American Savings Bank Queen Street and Ward Avenue Branch, and Island Roses. Two of the three properties, Kewalo Theatre and Island Roses, have minimum setbacks from the property line and widening of Queen Street to accommodate the guideway would require their demolition. The acquisition would result in a Section 4(f) use of these historic properties. The current uses of 28 of these parcels would be displaced. This compares to displacements on 5 parcels in this area of the Project. The Queen Street Shift Alternative would increase the cost of the project by approximately $70 million in 2009 dollars. Relocation of the Civic Center and Kaka‘ako Stations would have a minor effect on ridership.

Because of the additional use of Section 4(f) properties, additional displacements, and additional cost, the Queen Street Shift Alternative would not be a prudent alternative to reduce impacts to Mother Waldron Neighborhood Park. The Halekauwila Street Alignment avoids Section 4(f) uses that would occur with the Queen Street Shift Alternative.

4.4 Summary of Use

The Project will not result in a constructive use of Mother Waldron Neighborhood Park and Playground. The Project will not substantially impair the significant historic or recreational activities, features, and attributes that qualify for protection under Section 4(f). As a result, there will be no constructive use of the significant recreational and historic activities, features, and attributes of Mother Waldron Neighborhood Park and Playground. There will be neither direct use nor temporary occupancy of Mother Waldron Neighborhood Park and Playground. The Project will not have a Section 4(f) use of Mother Waldron Neighborhood Park and Playground.

FTA and HART have coordinated with the agencies with jurisdiction over the Section 4(f) resources that are evaluated in this Draft Supplemental EIS/4(f). Additional public and agency comments on this Draft Supplemental EIS/4(f) may be submitted per the instructions included in the Abstract.

5.1 Agency Consultation

HART met with the City and County Department of Parks and Recreation on two instances (DPR 2012, DPR 2013) and provided a draft of the evaluation of Mother Waldron Neighborhood Park and Playground for their review. They concurred with the content and findings of this analysis on May 22, 2013 [Appendix C to this Draft Supplemental EIS/4(f)]. The information provided by the Department of Parks and Recreation is included in Sections 4.1.1 and 4.2.3 of this Draft Supplemental EIS/4(f).

FTA and HART submitted the draft NRHP nomination for listing Mother Waldron Playground on the NRHP to the SHPO for review on April 17, 2013 [Appendix C to this Draft Supplemental EIS/4(f)]. The SHPD previously concurred with adverse effect determinations for the Project. The ACHP participated in the resolution of effects and signed the PA, including the determination for Mother Waldron Playground that [Attachment 2 to the PA (FTA 2011)]:

> *There is no direct impact to the property. The Project will be about 10 feet mauka of the park's edge, 150 feet makai of the Art Deco/ Art Moderne-style comfort station and elevated about 35 to 40 feet high in this location. The Project will not affect the park's design elements or aesthetic features that contribute to the park's use and enjoyment. However, there will be an effect to setting.*

5.2 Public and Agency Comment

This Draft Supplemental EIS/4(f) is being distributed for public review and comment prior to the issuance of a Final Supplemental EIS/4(f) and any required supplement to the Record of Decision. Comments may be returned during the 45-day Draft Supplemental EIS/4(f) review period to FTA or HART. FTA and HART will hold a public hearing on the content and finding of this Draft Supplemental EIS/4(f) during the 45-day review period.

Any comments on this Draft Supplemental EIS/4(f) should be limited to the scope of analysis of the Draft Supplemental EIS/4(f). All substantive comments on the content of this Draft Supplemental EIS/4(f) will be addressed in the Final Supplemental EIS/4(f).

References

CFR 1989 — Code of Federal Regulations (CFR). September 1989. 36 CFR 800. *Protection of historic and cultural properties.*

CFR 2007 — Code of Federal Regulations (CFR). Revised January 2007. 36 CFR 60.4. *National register of historic places: Criteria for evaluation.*

CFR 2008 — Code of Federal Regulations (CFR). March 2008. 23 CFR 774 et seq. *Parks, recreation areas, wildlife and waterfowl refuges, and historic sites* [Section 4(f)].

DPP 2002 — City and County of Honolulu Department of Planning and Permitting (DPP). 2002. *General plan for the City and County of Honolulu*.

DPR 2012 — City and County of Honolulu Department of Parks and Recreation (DPR). December 5, 2012. Meeting notes.

DPR 2013a — City and County of Honolulu Department of Parks and Recreation (DPR). March 7, 2013. Meeting notes.

DPR 2013b — City and County of Honolulu Department of Parks and Recreation (DPR). May 22, 2013. Letter to Daniel Grabauskaus at HART.

DTS 2006 — City and County of Honolulu Department of Transportation Services (DTS). 2006. *Honolulu high-capacity transit corridor project alternatives analysis conceptual plans.*

DTS 2006 — City and County of Honolulu Department of Transportation Services (DTS). 2006. *Honolulu high-capacity transit corridor project alternatives analysis report.*

DTS 2006 — City and County of Honolulu Department of Transportation Services (DTS). 2006. *Honolulu high-capacity transit corridor project final capital costing memorandum.*

DTS 2007 — City and County of Honolulu Department of Transportation Services (DTS). 2007. *Honolulu high-capacity transit corridor project Tunnels and Underground Stations Technical Memorandum.*

DTS 2007a — City and County of Honolulu Department of Transportation Services (DTS). 2007. *Honolulu high-capacity transit corridor project Visual Impacts Technical Report.*

DTS 2007b — City and County of Honolulu Department of Transportation Services (DTS). 2007. *Honolulu high-capacity transit corridor project Historic and Archaeological Technical Report.*

FHWA 2012 U.S. Department of Transportation, Federal Highway Administration (FHWA). July 2012. *Section 4(f) policy paper.*

Forrest City 2012 Forrest City. 2012. *Best and final offer mixed-use transit-oriented development project at 690 Pohukaina Street.*

FTA 2011 U.S. Department of Transportation, Federal Transit Administration (FTA). January 2011. *Honolulu high-capacity transit corridor project programmatic agreement.*

HART 2010 Honolulu Authority for Rapid Transportation (HART). 2012. Final Archaeological Inventory Survey of Construction Phase I for the Honolulu High-Capacity Transit Corridor Project, Honouliuli, Hō‘ae‘ae, Waikele, Waipi‘o, Waiawa, and Mānana Ahupua‘a, ‘Ewa District, Island of O‘ahu TMK: [1] 9-1, 9-4, 9-6, 9-7 (Various Plats and Parcels).

HART 2012a Honolulu Authority for Rapid Transportation (HART). April 2012. *He Mo‘olelo Aina-Traditions and storied places in the District of ‘Ewa and Moanalua (in the District of Kona), Island of Oahu: A traditional cultural properties study-technical report.*

HART 2012b Honolulu Authority for Rapid Transportation (HART). April 2012. *Study to identify the presence of previously unidentified traditional cultural properties (TCP) in Sections 1-3 (West O‘ahu Farrington Highway, Kamehameha Highway Guideway and Airport) for the Honolulu Rail Transit Project—Management Summary.*

HART 2012c Honolulu Authority for Rapid Transportation (HART). May 2012. *Determination of eligibility and finding of effect for previously unidentified TCPs in Sections 1-3.*

HART 2012d Honolulu Authority for Rapid Transportation (HART). 2012. Final Archaeological Inventory Survey for Construction Phase 2 of the Honolulu High-Capacity Transit Corridor Project, Waiawa, Mānana, Waimano, Waiau, Waimalu, Kalauao, ‘Aiea, and Hālawa Ahupua‘a, ‘Ewa District, Island of O‘ahu TMK: [1] 9-7, 9-8, and 9-9 (Various Plats and Parcels).

HART 2012e Honolulu Authority for Rapid Transportation (HART). 2012. Section 4(f) Evaluation of Traditional Cultural Properties in Sections 1 through 3 of the Honolulu Rail Transit Project.

HART 2013a Honolulu Authority for Rapid Transportation (HART). 2013. Final Archaeological Inventory Survey for the Airport Section (Construction Section 3) of the Honolulu High-Capacity Transit Corridor Project, Hālawa and Moanalua Ahupua‘a, ‘Ewa and Honolulu Districts, O‘ahu Island TMK Sections [1] 1-1 and 9-9 (Various Plats and Parcels).

HART 2013b Honolulu Authority for Rapid Transportation (HART). 2013. Final Archaeological Inventory Survey for the City Center Section (Construction Section 4) of the Honolulu High-Capacity Transit Corridor Project.

HCDA 1981 Hawai'i Community Development Authority (HCDA). 1981. *Kaka'ako community development district plan.*

HCDA 2011 Hawai'i Community Development Authority (HCDA). November 2, 2011. 690 Pohukaina Transit Oriented Development Public Presentation Materials from website: http://hcda-public-consultation.org/portal/690_pohukaina_1/690_pohukaina_mixed_use_transit_oriented_development_1

HCDA 2011 Hawai'i Community Development Authority (HCDA). September 2011. *Kaka'ako community development district mauka area plan.*

RTD 2009 City and County of Honolulu Department of Transportation Services, Rapid Transit Division (RTD). 2009. *Kaka'ako area-wide traffic study.*

RTD 2009a City and County of Honolulu Department of Transportation Services, Rapid Transit Division (RTD). 2009. *Honolulu high-capacity transit corridor project historic effects technical report.*

RTD 2010 City and County of Honolulu Department of Transportation Services, Rapid Transit Division (RTD). 2010. *Honolulu high-capacity transit corridor project final environmental impact statement/section 4(f) evaluation.*

SHPD 1988 State Historic Preservation Division (SHPD). April 1988. State Register of Historic Places Listing Form, Mother Waldron Playground (the State Register uses the National Register of Historic Places listing form, but the property was not listed on the National Register).

SHPD 2012 Determination of Eligibility and Finding of Effect for Previously Unidentified Traditional Cultural Properties in Sections 1-3, 'Ewa Moku, Island of Oahu, TMK (1) various.

USC 1966a United States Code (USC). October 1966. 16 USC 470. *National historic preservation act of 1966* (NHPA) (Section 106).

USC 1966b United States Code (USC). October 1966. 49 USC 303. *Department of Transportation Act—Policy on lands, wildlife and waterfowl refuges, and historic sites* [Section 4(f)]*.*

USDOT 2012 United States Department of Transportation. Federal Highway Administration Office of Planning, Environment, and Realty Project Development and Environmental Review. July 20, 2012. Section 4(f) Policy Paper

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Ala Moana Center
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Clifford Mercado
Clint Loder
Cory Kot
Crysta Okabe
Daisy Murai
Darci Evans
David Rolf
Debbie Stelmach
Dennis Egge
Doris Nakamura
Doug Pyle
Douglas Torres
Earl Arakaki
Eddielyn Fernandez
Elaine Chu
Epaferoti Sataraka
Eric Minton
Eve G. Anderson
Evelyn Arkaki
Faanati Leano
Fidelia Leano
Florita Pa
Frank Genadio
Frank Latino
Frank Mak
Fred Abe
Garry P. Smith
Gary O'Donnell
George Melenka
Glenn Oamilda
Harry A. Huyler
Helen McCune
Helito Caraang
Henry Lee
Herb Rothouse
Herbert T.C. Loo
Homer A. Chang
Howard Hoddich
Ian Capps
Irwin and Michelina Mayer
Jack R. Corteway
Jacqueline A. Parnell
Jaime Kurosawa
James R. McManus
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Janice Pechauer
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Jayson Reginaldo
Jeremy Lam
Jerry D. Greer
Jim Hayes
Joan Bennett
Joanna Boyette
Joe Davis, Jr.
John Brizdle
John Higgins
John Kato
Jon Ishihara
Judy Flores
Karen Awana
Karen Shimura
karen Sunahara-Teruya
Katherine T. Kupukaa
Kenneth Tsumoto
Kevin Killeen
Kim Young
Kirk Paterson
Lane O. Sato
Larry Lee
Leatrice and Lawrence Fung
Lennard Pepper
Lennette Hinton
Leslie A. Among
Liane Briggs
M. Hashimoto
M. Wearstler
Made Brunner
Malo Sua
Marilyn Michaels
Mark R. James
Mark Taylor
Martinez Family
Maurice Morita
Max H. Watson
Megan Giles
Michael Burton
Michael Golojuch, Jr.
Michael P. Rethman
Michelle Matson
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Mitsuru Takahashi
Nadia Leano
Nancy Hedlund
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Pam Smith
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Robert B. Marrone
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Robert Crone
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Robert Nickel
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Robert Webb
Robert Wong
Rodlyn Brown
Rodolfo Ramos
Ronald J. Verga
Rosita Sipirok-Siregr
Russell Hollman
Ruth Boyette
Ruth Nakasone
Samoa Naea
Samuel M. Smith
Scott Miguel
Scott Wilson
Sechyl Cain
Sharon MacQuoid
Shawn Carbrey
Sherman Kwock
Shirly Lin
Stanley Hamada
Stephanie Fernandes
Steven Fekete
Sue Jansen
Taeotafe Melei
Taulagi Leano
Ted Taheny
Terry Conlan
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Zoe Jarvis

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Appendix A—Judgment and Partial Injunction Order of the United States District Court in HONOLULUTRAFFIC.COM et al. vs. FEDERAL TRANSIT ADMINISTRATION et al.

UNITED STATES DISTRICT COURT

DISTRICT OF HAWAII

HONOLULUTRAFFIC.COM; CLIFF SLATER; BENJAMIN CAYETANO; WALTER HEEN; HAWAII'S THOUSAND FRIENDS; THE SMALL BUSINESS HAWAII ENTREPRENEURIAL EDUCATION FOUNDATION; RANDALL W. ROTH; and DR. MICHAEL UECHI,

Plaintiffs,

vs.

FEDERAL TRANSIT ADMINISTRATION; LESLIE ROGERS, in his official capacity as Federal Transit Administration Regional Administrator; PETER M. ROGOFF, in his official capacity as Federal Transit Administration Administrator; UNITED STATES DEPARTMENT OF TRANSPORTATION; RAY LAHOOD, in his official capacity as Secretary of Transportation; THE CITY AND COUNTY OF HONOLULU; and WAYNE YOSHIOKA, in his official capacity as Director of the City and County of Honolulu Department of Transportation,

Defendants,

CV No. 11-0307 AWT

JUDGMENT AND PARTIAL INJUNCTION

FAITH ACTION FOR COMMUNITY EQUITY; PACIFIC RESOURCE PARTNERSHIP; and MELVIN UESATO,

Intervenors - Defendants.

After briefing, hearing, and disposition of this case on the merits, *see HonoluluTraffic.com v. Fed. Transit Admin.*, 2012 WL 1805484 (D. Hawaii 2012) (partial grant of summary judgment); Order on Cross-Motions for Summary Judgment, filed Nov. 1, 2012 ("Summary Judgment Order"), the parties and the court addressed the appropriate remedy. The parties submitted additional briefing on the scope of any remedies, including any equitable relief. The remedy phase was fully argued and heard on December 12, 2012. After due consideration of those arguments, briefs, and the record, the court now enters its final Judgment, which shall include partial injunctive relief, as set forth below.

As reflected in its prior orders, the court granted summary judgment to Plaintiffs on three of their § 4(f) claims – claims arising under § 4(f) of the Department of Transportation Act, 49 U.S.C. § 303. The court granted summary judgment to Defendants on all other claims raised by Plaintiffs, which include Plaintiffs' remaining § 4(f) claims, all claim arising under the National Environmental Policy Act, 42 U.S.C. § 4321 *et seq.*, and all claims arising under § 106 of the National Historic Preservation Act, 16 U.S.C. § 470f. In entering its partial permanent injunction, the court has considered the well-recognized equitable factors that apply, *see, e.g.*, *Monsanto Co. v. Geertson Seed Farms*, 130 S. Ct. 2743, 2756 (2010), and finds that, to the extent Defendants actions are enjoined, the four-factor test, on balance favors Plaintiffs, including: (1) irreparable injury: (2) the inadequacy of monetary relief; (3) the balance of hardships; and (4) the public interest.

IT IS, THEREFORE, ADJUDGED that **t**his matter is remanded to the Federal Transit Administration, but without vacatur of the Record of Decision, to comply with the court's Summary Judgment Order.

DEFENDANTS, their officers, agents, servants, employees, and attorneys; and all other persons who are in active concert or participation with them, are hereby restrained and enjoined from conducting any construction activities and real estate acquisition activities in Phase 4 of the Honolulu High-Capacity Transit Corridor Project (the "Rail Project"). This injunction on Phase 4 construction activities shall terminate 30 days after Defendant Federal Transit Administration files with the court notice of Defendants' compliance with the Summary Judgment Order and evidence of such compliance, unless Plaintiffs file an objection within said 30-day period specifying how the Federal Transit Administration has failed to comply with the Summary Judgment Order. If such objection is timely filed, this injunction shall remain in effect pending the court's resolution of Plaintiffs' objection(s).

This injunction shall not prohibit, and Defendants may prepare, Phase 4 engineering and design plans, conduct geotechnical training, and conduct other pre-construction activities, including any activities that are appropriate to complete the additional analysis required by the Summary Judgment Order. This injunction shall not apply to Phases 1 through 3 of the Rail Project.

Within 150-180 days of the issuance of this Judgment, and every 90 days thereafter, Defendants shall file a status report setting forth the status of Defendants' compliance efforts with the terms of the Summary Judgment Order. Either by stipulation of all parties or upon noticed motion, Defendants may apply to except any activity otherwise prohibited by this injunction from its terms.

In the exercise of its discretion, the court determines that each party shall bear its own costs.

Dated: December 27, 2012.

/s/ *A. Wallace Tashima*
United States Circuit Judge
Sitting by designation

Appendix B—Summary Judgment Order of the United States District Court in HONOLULU-TRAFFIC.COM et al. vs. FEDERAL TRANSIT ADMINISTRATION et al.

UNITED STATES DISTRICT COURT

DISTRICT OF HAWAII

HONOLULUTRAFFIC.COM; CLIFF SLATER; BENJAMIN CAYETANO; WALTER HEEN; HAWAII'S THOUSAND FRIENDS; THE SMALL BUSINESS HAWAII ENTREPRENEURIAL EDUCATION FOUNDATION; RANDALL W. ROTH; and DR. MICHAEL UECHI,

Plaintiffs,

vs.

FEDERAL TRANSIT ADMINISTRATION; LESLIE ROGERS, in his official capacity as Federal Transit Administration Regional Administrator; PETER M. ROGOFF, in his official capacity as Federal Transit Administration Administrator; UNITED STATES DEPARTMENT OF TRANSPORTATION; RAY LAHOOD, in his official capacity as Secretary of Transportation; THE CITY AND COUNTY OF HONOLULU; and WAYNE YOSHIOKA, in his official capacity as Director of the City and County of Honolulu Department of Transportation,

Defendants,

FAITH ACTION FOR COMMUNITY EQUITY; PACIFIC RESOURCE PARTNERSHIP; and MELVIN UESATO,

Intervenors - Defendants.

Civ. No. 11-00307 AWT

ORDER ON CROSS-MOTIONS FOR SUMMARY JUDGMENT

HonoluluTraffic.com, et. al ("Plaintiffs"), claim that the City and County of Honolulu (the "City") and the Federal Transit Administration ("FTA") (collectively, "Defendants") have violated three federal statutes in the process of approving a twenty-mile elevated guideway rail transit project (the "Project"): (1) Section 4(f) of the Department of Transportation Act ("Section 4(f)"), 49 U.S.C. § 303; (2) the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321-4370h; and (3) Section 106 of the National Historic Preservation Act ("NHPA"), 16 U.S.C. § 470f. Now pending before the court are the parties' cross-motions for summary judgment, which have been fully briefed and argued. For the reasons set forth below, Plaintiffs' motion is **granted in part**, with respect to three claims arising under Section 4(f). Defendants' motion is **granted in part**, with respect to all other claims.

I. Background

On December 27, 2005, the FTA published a Notice of Intent ("2005 NOI") to prepare an Alternatives Analysis ("AA") and an Environmental Impact Statement ("EIS") for a transit project in Honolulu. AR 9700. The stated purpose of the Project was to provide improved mobility through the busy twenty-five-mile west-east transportation corridor between Kapolei and the University of Hawaii at Manoa ("UH") and Waikiki. *Id.* The City undertook a scoping process and prepared an AA reviewing four alternatives: a no build alternative; improvements to the existing bus system ("the transportation system management alternative"); an elevated express bus/carpool lane alternative (the "managed lanes alternative"); and a railway alternative (the "fixed guideway alternative"). AR 247 at 322. The AA concluded that the fixed guideway alternative was the only one that satisfied the Project's purpose and need. *Id.* at 329. The Honolulu City Council subsequently selected the fixed guideway transit system as the locally preferred alternative. *Id.* at 296, 323.

The FTA then published a second Notice of Intent to prepare an EIS on March 15, 2007 ("2007 NOI"). AR 9696. The 2007 NOI requested public comment on five possible transit technologies: light-rail; rapid-rail (steel wheel on steel rail); rubber-tire guided; magnetic levitation; and monorail. *See id.* A five-member panel of experts appointed by the City Council reviewed responses to that request, as well as twelve responses from transit vehicle manufacturers and, in February 2008, on a vote of four-to-one, selected steel-wheel-on-steel as the technology for the Project. AR 247 at 331. Honolulu voters subsequently approved a City Charter amendment to establish a steel-on-steel rail system. *Id.*

Defendants then prepared a Draft EIS ("DEIS") and a Final EIS ("FEIS"). *See* AR 247; 7223. The DEIS and FEIS analyzed only four alternatives: the no build alternative and three elevated, fixed guideway, steel-on-steel railway routings. AR 247 at 331-37. All three fixed guideway options ran down the twenty-mile corridor between Kapolei and Ala Moana Center, but via slightly different routes. *Id.* One fixed guideway option ran via Salt Lake Boulevard, a second via the airport, and the third via both Salt Lake Boulevard and the airport. *Id.* The FEIS selected the airport route as the preferred alternative. *Id.* at 337-38. The FEIS also included an evaluation of the Project's potential use of land from historic resources and public parks, pursuant to Section 4(f). *Id.* at 680. The FEIS concluded that the Project would use some historic resources in downtown Honolulu, including the Chinatown Historic District, but found that there was no feasible and prudent alternative to such use. *Id.* at 718-27.

The FTA's Record of Decision ("ROD") approving the Project was issued on January 18, 2011. AR 30. The FTA, the City, the Advisory Council on Historic Preservation, the Hawaii State Historic Preservation Officer ("SHPO"), and the United States Navy also entered into a Programmatic Agreement ("PA") pursuant to § 106 of the NHPA, which was incorporated into the ROD. AR 30 at 30-42, 83-228. The Project is to be funded using local tax revenues and federal funding from the New Starts program, *see*

49 U.S.C. § 5309, and is to be constructed in four phases. AR 247 at 362, 777.

On May 12, 2011, Plaintiffs filed this action, alleging that the FEIS and ROD approving the Project did not comply with the requirements of NEPA, Section 4(f), NHPA, and the regulations implementing those statutes. (Compl., Doc. 1).

II. The Legal Standard

Summary judgment is proper where there is no genuine issue of material fact and the moving party is entitled to judgment as a matter of law. Fed R. Civ. P. 56(c); *Celotex Corp. v. Catrett*, 477 U.S. 317, 322-23 (1986). The court must draw all reasonable inferences in favor of the nonmoving party. *Matsushita Elec. Indus. Co. v. Zenith Radio*, 475 U.S. 574, 587 (1986).

"The Administrative Procedure Act ('APA') provides authority for the court's review of decisions under NEPA and Section 4(f) . . . ." *N. Idaho Cmty. Action Network v. U.S. Dep't of Transp.*, 545 F.3d 1147, 1152 (9th Cir. 2008). "Under the APA, the district court may only set aside agency actions that are 'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.'" *Id.* (quoting 5 U.S.C. § 706(2)(A)). A decision is arbitrary and capricious

> only if the agency relied on factors Congress did not intend it to consider, entirely failed to consider an important aspect of the problem, or offered an explanation that runs counter to the evidence before the agency or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

Id. at 1152-53 (quoting *Lands Council v. McNair*, 537 F.3d 981, 987 (9th Cir. 2008) (en banc)). An agency has discretion to rely on the reasonable opinions of its own qualified experts even if, as an original matter, a court might find contrary views more persuasive. *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 378 (1989).

III. Merits

A. Section 4(f) Claims

Section 4(f) provides that the Secretary of Transportation (the "Secretary") may approve a transportation project requiring the "use" of a public park or historic site of

national, state, or local significance only if: (1) "there is no prudent and feasible alternative" to using the site; and (2) the project includes "all possible planning" to minimize harm to the site resulting from the use. 49 U.S.C. § 303. Section 4(f) therefore imposes a substantive mandate on agencies implementing transportation improvements. *N. Idaho Cmty. Action Network*, 545 F.3d at 1158.

When a court reviews a Section 4(f) determination, it must ask three questions:

> First, the reviewing court must determine whether the Secretary acted within the scope of his authority and whether his decision was reasonably based on the facts contained in the administrative record. Second, the reviewing court must determine whether the Secretary's decision was arbitrary, capricious or an abuse of discretion because he failed to consider all relevant factors or made a clear error of judgment. Third, the reviewing court should decide whether the Secretary complied with the applicable procedural requirements.

Ariz. Past & Future Found., Inc. v. Lewis, 722 F.2d 1423, 1425 (9th Cir. 1983) (citing *Citizens to Pres. Overton Park v. Volpe*, 401 U.S. 402, 416 (1971)); *see also Adler v. Lewis*, 675 F.2d 1085, 1091 (9th Cir. 1982).

Plaintiffs' Section 4(f) claims fall into three categories. First, Plaintiffs claim that Defendants failed to identify Native Hawaiian burial sites and other traditional cultural properties ("TCPs") prior to the issuance of the ROD. Second, Plaintiffs assert that Defendants erroneously concluded that the Project would not constructively use Aloha Tower, Irwin Park, Walker Park, and Mother Waldron Park.[1] Third, Plaintiffs claim that Defendants failed to meet Section 4(f)'s substantive mandate, because Defendants erroneously determined that there were no feasible and prudent alternatives to the Project and because Defendants did not engage in all possible planning to minimize harm to Section 4(f) sites. Each of these claims is addressed in turn below.

1. Failure to Identify Native Hawaiian Burial Sites and Traditional

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[1] Plaintiffs' claimed that the Project "used" a number of other sites protected under Section 4(f), other than those discussed in this Order. Plaintiffs' attack on those other sites has been disposed of in an earlier summary judgment ruling. *See HonoluluTraffic.com v. Fed. Transit Admin.*, 2012 WL 1805484 (D. Hawaii 2012).

Cultural Properties

a. Burial Sites

The first step in a Section 4(f) analysis is the identification of possible Section 4(f) sites that could be "used" by the project. Federal regulations provide that "[t]he potential use of land from a Section 4(f) property shall be evaluated as early as practicable in the development of the action when alternatives to the proposed action are under study." 23 C.F.R. § 774.9(a). Section 4(f) approval of a project must be made either in the FEIS or the ROD. § 774.9(b). Plaintiffs claim that Defendants have violated Section 4(f) by taking a "phased approach" to the identification of underground Native Hawaiian burial sites that could be disturbed along the route of the elevated guideway. Native Hawaiian burial sites, including those discovered during construction, qualify as historic sites protected under Section 4(f), as long as they are included in, or eligible for inclusion in, the National Register of Historic Places. *See* 23 C.F.R. §§ 774.11(f), 774.17.

Defendants admit that they have not yet carried out Archaeological Inventory Surveys ("AISs") to identify undiscovered burial sites across the entire twenty-mile length of the Project, even though Defendants concede that it is possible, and even likely in some areas, that the construction of the stations and columns of the elevated guideway may disturb such sites. Defendants explain that they made the decision to wait because completion of an AIS requires excavation to a depth of five feet, AR 111849 at 111853, and the exact positioning of the Project's stations and columns had yet to be determined at the time the ROD was approved. Consequently, to complete an AIS at that time, Defendants would have had to excavate far more areas, and could potentially have disturbed far more archaeological sites, than would be necessary once project plans were complete. *See* 23 C.F.R. § 771.113(a)(1)(iii) (prohibiting final design activities on a transportation project until after the FEIS and ROD are complete).

Instead, Defendants produced an Archaeological Resources Technical Report in August 2008. *See* AR 37676. The Report used a number of resources, including soil

survey data, archaeological records, land survey maps, and field observations, in order to identify all known burial sites and to predict the likelihood of finding burials in each phase of the project. *See id.* at 37686, 37710-11. The Report also suggested that there were many reasons not to carry out a full archaeological survey of the fixed guideway route prior to issuance of the ROD, including that the identification of resources beneath sidewalks, streets, and highways would significantly disrupt traffic, that the cost of the project would greatly increase if a full survey was undertaken, and that the survey would need to take place over a larger area than would actually be affected by the guideway because the footprint of the guideway was not yet known. *Id.* at 37704. The Report concluded that a reasonable, good faith effort had been made to identify resources located within the Project alignments. *Id.*

In addition, prior to the issuance of the ROD, Defendants performed an AIS for Phase I of the Project; the document ran nearly five hundred pages. AR 59459. The FTA explains in its briefing that it was possible to complete the first AIS at an early stage because the western portion of the Project is less developed than downtown Honolulu and less likely to contain burial sites from traditional Hawaiian times. *See* Doc. 157 at 15. In the PA, Defendants also provided for the protection and avoidance of later-discovered burials, specifying that subsurface testing will be conducted at each column location prior to construction and that efforts will be made to alter the construction plan to avoid newly-discovered burial sites with in-place significance. *See* AR 30 at 92-93; *see also* 23 C.F.R. § 774.9(f) ("Section 4(f) may apply to archaeological sites discovered during construction . . . . In such cases, the Section 4(f) process will be expedited and any required evaluation of feasible and prudent avoidance alternatives will take account of the level of investment already made.").

Plaintiffs argue that these efforts amount to just the sort of "phased approach" to

the identification of Section 4(f) sites that has been rejected in Ninth Circuit precedent.[2] In *North Idaho Community Action Network*, the plaintiffs challenged a proposed highway project under Section 4(f). 545 F.3d at 1151. The Department of Transportation ("DOT") conceded that it had decided to take a phased approach to the identification of Section 4(f) and NHPA Section 106 historic sites, and so had not yet conducted any analysis of three of the four project phases, even though the ROD had already issued. *Id.* at 1158. The Ninth Circuit concluded that the DOT's action was in violation of Section 4(f), because the Section 4(f) evaluation must be completed prior to the issuance of the ROD. *Id.* at 1158-59.

Two D.C. Circuit cases have also discussed the timing of Section 4(f) evaluations. In *Corridor H Alts., Inc. v. Slater*, the Federal Highway Administration ("FHWA") approved a ROD for a highway, but made that approval conditional on the future identification of Section 4(f) properties in fourteen sections of the project. 166 F.3d 368, 371-72 (D.C. Cir. 1999). The court held that this action was in violation of Section 4(f) because the agency failed to make any preliminary Section 4(f) determinations prior to the issuance of the ROD. *Id.* at 373.

In contrast, in *City of Alexandria v. Slater*, the court upheld the FHWA's Section 4(f) analysis for plans to replace a bridge. 198 F.3d 862, 863-73 (D.C. Cir. 1999). The FHWA identified a number of historic sites along the project corridor and published a Section 4(f) evaluation prior to the approval of the ROD, but postponed the identification of Section 4(f) sites in areas where construction-related activities would occur, because the FHWA had yet to identify the locations that would be used for those activities. *Id.* at 865, 872. The court concluded that, given that the identification of the construction

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[2] In particular, Plaintiffs point to concerns voiced by the Oahu Island Burial Council ("OIBC"), National Trust for Historic Preservation, and a DOT official, all of whom suggested that it was important not to defer detailed identification of burial sites, especially in the downtown area, which is known to have a high concentration of undiscovered burials. *See* AR 125000 at 125005; 125208 at 125210; 124858 at 124858-59; 124645.

locations would require substantial engineering work that could not be conducted until after the ROD issued and that the sites postponed were merely "ancillary" to the project, Section 4(f) did not forbid the "rational planning process" adhered to by the FHWA. *Id.* at 873. It was not enough for the plaintiffs to argue that it would have been "feasible" to identify all Section 4(f) sites prior to the issuance of the ROD; "the standard of 'feasibility,' while relevant to whether an agency may use 4(f) properties, has no application in determining when the agency must identify them." *Id.*

This case differs from those prior cases. Unlike in *City of Alexandria*, the sites that Defendants have left unidentified until further engineering planning takes place are not "ancillary," but are those unidentified burial sites running directly down the fixed guideway route. On the other hand, in contrast to *North Idaho Community Action Network* and *Corridor H*, Defendants here have not deferred *all* Section 4(f) site identification to a later date; in fact, Defendants have made a significant effort to identify all known burials and predict the location of unknown burials.

The key question is whether Defendants have made a satisfactory effort to identify Section 4(f) sites. Plaintiffs contend that Defendants should have made *all* possible efforts to identify undiscovered burial sites down the main project corridor, while Defendants argue that only *reasonable* efforts were necessary, not full excavation of the guideway route.

Determining the necessary level of effort requires reference to NHPA § 106. All of the cases discussed above agreed that, because Section 4(f) historic sites are defined as properties on or eligible for listing on the National Register, the agency must first complete the Section 106 process for identification of historic properties in order to satisfy its Section 4(f) obligation to identify protected historic sites. *N. Idaho Cmty. Action Network*, 545 F.3d at 1159 ("[B]ecause the § 4(f) evaluation cannot occur until after the § 106 identification process has been completed, the § 106 process necessarily must be complete by the time the ROD is issued."); *City of Alexandria*, 198 F.3d at 871;

Corridor H, 166 F.3d at 370-71.

Federal regulations implementing § 106 provide that "the agency shall take the steps necessary to identify historic properties within the area of potential effects." 36 C.F.R. § 800.4(b). In describing the level of effort required to meet this mandate, the regulations provide:

> The agency official shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. The agency official shall take into account past planning, research and studies, the magnitude and nature of the undertaking and the degree of Federal involvement, the nature and extent of potential effects on historic properties, and the likely nature and location of historic properties within the area of potential effects.

36 C.F.R. § 800.4(b)(1). Consequently, Because Section 4(f) compliance is predicated on identification of historic sites via the § 106 process, if an agency makes a "reasonable and good faith effort" to identify historic sites, the agency's Section 4(f) responsibility should also be satisfied.

Defendants have made a significant effort to pinpoint all known archaeological sites along the project route, and crafted a plan for dealing with any sites that may be later discovered as construction progresses. *See Valley Cmty. Pres. Comm. v. Mineta*, 373 F.3d 1078, 1089 (10th Cir. 2004) (holding that the FHWA had met its Section 4(f) obligations where a PA was adopted to deal with any impacts to previously unidentified cultural resources discovered during construction). Because Defendants have made this "reasonable and good faith effort" to identify § 106 sites, they have satisfied their obligation to identify Section 4(f) sites prior to the issuance of the ROD. Accordingly, Plaintiffs' Section 4(f) challenge to the identification of burial sites is rejected.

b. Traditional Cultural Properties

Section 4(f) also protects properties of traditional religious and cultural importance to Native Hawaiian organizations if they are included in or eligible for inclusion in the National Register. 23 C.F.R. § 774.17. *National Register Bulletin 38* "provides the

recognized criteria for the . . . identification and assessment of places of cultural significance." *Muckleshoot Indian Tribe v. U.S. Forest Serv.*, 177 F.3d 800 at 807 (9th Cir. 1999). *Bulletin 38* defines a TCP as a property that is eligible for inclusion on the National Register because of its association with cultural practices or beliefs of a living community that are (a) rooted in the community's history, and (b) important in maintaining the continuing cultural identity of the community. *Bulletin 38* at 1. Plaintiffs claim that Defendants have failed to make sufficient effort to identify TCPs that could be used by the Project. Because TCPs are not necessarily subterranean, Plaintiffs argue, Defendants cannot assert that they did not identify TCPs because they are hidden underground or difficult to identify.

Although Defendants prepared a Cultural Resources Technical Report, it did not decide the § 106 or Section 4(f) eligibility of the cultural resources identified, but instead jumped ahead to focus on possible adverse effects to those resources. *See* AR 38098. In the FEIS, Defendants identified only one TCP, Chinatown, and stated that the City would conduct a study to evaluate the project area for the presence of other TCPs. AR 247 at 623, 632, 718. If the FTA determined that any of later-identified TCPs were eligible for inclusion on the National Register, then the City would meet with the § 106 consulting parties to identify measures to avoid, minimize, and mitigate adverse effects to those properties. *Id.* at 623. The PA also stated that preliminary cultural resources research had identified one TCP, Chinatown, and that, within 30 days of the ROD, the City would undertake a study to determine the presence of unidentified TCPs. AR 30 at 91. Neither the FEIS nor the PA explained why Defendants did not undertake a comprehensive study to identify TCPs at an earlier time.

There is no discussion in the record of the Section 4(f) eligibility of any identified TCPs other than Chinatown, and the FEIS and PA suggest that only "preliminary" efforts have been made to investigate whether meaningful cultural properties are situated within the Project corridor. Because Defendants have presented no reason why it would have

been unreasonably difficult to identify such above-ground TCPs prior to issuance of the ROD, this decision to delay full study of above-ground TCPs was arbitrary and capricious.

Before continuing with the Project in any way that may use unidentified TCPs, Defendants must complete their identification of above-ground TCPs within the corridor. *See N. Idaho Cmty. Action Network*, 545 F.3d at 1160-61 (construction need be delayed during completion of Section 4(f) evaluation only for those phases of the project for which such evaluation had not yet been completed). For any TCPs identified, Defendants must conduct a complete Section 4(f) analysis. The ROD must be supplemented to include any newly identified TCPs. The FEIS must also be supplemented to the extent that this process requires changes that "may result in significant environmental impacts 'in a manner not previously evaluated and considered.'" *Id*. at 1157 (quoting *Westlands Water Dist. v. Dep't of Interior*, 376 F.3d 853, 873 (9th Cir. 2004)).

2. Constructive Use Determinations

Plaintiffs also challenge Defendants' determination that the rail project would not constructively use four specific sites. A Section 4(f) site is "used" when land is permanently incorporated into a transportation facility, when there is a temporary occupancy of land that is adverse in terms of the statute's preservation purpose, or when there is a constructive use of land. 23 C.F.R. § 774.17; *see also Adler*, 675 F.2d at 1092 (noting that the term "use" is to be construed broadly to include areas that are significantly, adversely affected by a project but are not physically taken).

The regulations provide:

> A constructive use occurs when . . . the project's proximity impacts are so severe that the protected activities, features, or attributes that qualify the property for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only when the protected activities, features, or attributes of the property are substantially diminished.

23 C.F.R. §774.15(a); *see also Adler*, 675 F.2d at 1092 (observing that off-site activities are governed by Section 4(f) if they could create "sufficiently serious impacts that would

substantially impair the value of the site in terms of its prior significance and enjoyment"). To make a constructive use determination, the agency must first identify the current activities, features, or attributes of the property which qualify for protection under Section 4(f), then must analyze the proximity impacts of the Project on the property and, finally, must consult with officials with jurisdiction over the property. 23 C.F.R. § 774.15(d).

The regulations provide some examples of constructive use, including: (1) when the projected noise level increase substantially interferes with the use and enjoyment of an urban park where serenity and quiet are significant attributes, § 774.15(e)(1)(iv); (2) when the proximity of the project obstructs or eliminates the primary views of an architecturally significant historical building or substantially detracts from the setting of a property which derives its value in substantial part due to its setting, § 774.15(e)(2); and (3) when vibration impacts substantially impair the use of a property, § 774.15(e)(4). Conversely, there is no constructive use where the impact of project noise levels does not exceed the FTA noise impact criteria or where the increase in projected noise levels is barely perceptible. § 774.15(f)(2)-(3).

The Ninth Circuit has addressed issues of proper constructive use determination in a handful of cases. *See, e.g.*, *Laguna Greenbelt, Inc. v. U.S. Dep't of Transp.*, 42 F.3d 517, 533 (9th Cir. 1994) (agreeing with the FHWA's conclusion that parks were not constructively used where construction occurred over bike trails and the highway corridor ran adjacent to a park); *Ariz. Past & Future Found.*, 722 F.2d at 1429-30 (determining that there was no abuse of discretion when the agency determined that no historic sites would be adversely affected by a project); *Adler*, 675 F.2d at 1093 (agreeing that the agency did not err when it determined that fifty sites were not constructively used); *Stop H-3 Ass'n v. Coleman*, 533 F.2d 434, 445 (9th Cir. 1976) (concluding, without detailed explanation, that a petroglyph rock would be used by a highway that would pass near the rock); *Brooks v. Volpe*, 460 F.2d 1193, 1194 (9th Cir. 1972) (determining that

encirclement of a campground by a freeway is a constructive use).[3]

These principles and precedents inform the analysis of the four sites that remain at issue here, Aloha Tower, Walker Park, Irwin Park, and Mother Waldron Park.

a. Aloha Tower

Plaintiffs contend that Defendants erred in determining that the Project would not constructively use Aloha Tower because the Project will alter views of the tower from inland. The National Register of Historic Places nomination form for Aloha Tower explains that the tower is a modernist interpretation of a Gothic tower and that it traditionally served as a symbol of warm welcome for visitors who arrived by sea and who could see the white tower from fifteen miles away. AR 152826 at 152827-28. The tower remains a symbol of Hawaii's investment in tourism at a time when sea travel was the island's main link with the rest of the world. *Id.* at 152828. The tower was also a center of planning for military operations in World War II. *Id.*

The Project will sit 420 feet inland of the tower, in the median of the six-lane Nimitz Highway. AR 247 at 746. Defendants' Historic Effects Report, published in April 2009, concluded that views from the ocean to the tower and views from the tower's observation deck to the ocean and island are a historic visual feature of Aloha Tower and would not be impaired by the project. AR 39555 at 39872. The Report also noted that Aloha Tower is often not visible from points inland, because of vegetation and the many high-rise buildings in downtown Honolulu. *Id.* at 39872-73. Consequently, even if views

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[3] Cases from other circuits provide further guidance. *See, e.g.*, *Coal. Against a Raised Expressway (CARE) v. Dole*, 835 F.2d 803, 811 (11th Cir. 1988) (determining that there was a constructive use of historic buildings and a park that were immediately adjacent to a highway based on the cumulative effects of air pollution, noise impacts, and view impacts); *Citizen Advocates for Responsible Expansion, Inc. (I-CARE) v. Dole*, 770 F.2d 423, 441-42 (5th Cir. 1985) (concluding that a Section 4(f) report was deficient where it gave no consideration to the effects that a highway would have on a garden nine feet away and because it would border on the ridiculous to suggest that a highway would have minimal effects on a historic building with exterior features that would be greatly impacted by the highway).

of the tower from inland were obstructed by the project, no historically significant visual features would be altered. *Id.*

In its Section 4(f) analysis, the FEIS noted that Aloha Tower qualifies for protection as a historic property because of its Art Deco design elements and its historic associations with the harbor. AR 247 at 745-46. The FEIS concluded that Aloha Tower will still be visible from many vantage points inland and that, while some views of the tower from inland would be altered, the project would not block any views. *Id.* at 746. Consequently, the Project would not substantially impair views of the tower's design elements nor alter its historic setting; therefore, Aloha Tower would not be constructively used. *Id.*; *see also* AR 30 at 183 (ROD concluded that there was no direct impact on the tower). However, the FEIS also indicated that the guideway structure would partially block a view of the Aloha Tower from the Fort Street Mall. AR 247 at 512; *see also id.* at 540 (noting that the guideway and columns will block portions of views towards the water along a number of downtown streets), 528 (visual simulation of the change to the view from Fort Street Mall).

Plaintiffs point to the AA, which stated that, if the railway project was routed along Nimitz Highway, there would be "severe visual impacts" for Aloha Tower. *See* AR 9556 at 9623. This evidence, however, is not enough to show that Defendants' Section 4(f) use determination as to Aloha Tower was arbitrary and capricious. The ROD shows that Defendants thoroughly considered the impacts to views from and of Aloha Tower and reasonably concluded that the historically significant views of the tower were those from the sea. Accordingly, Plaintiffs' claim that Defendants' no-use determination for Aloha Tower was erroneous is rejected.

b. Walker Park

Plaintiffs claim that Defendants' determination that the Project would not use Walker Park was erroneous because the Project would impair Walker Park's historic associations and because Defendants failed to analyze noise and visual impacts on the

park. Walker Park is a small triangular urban park in downtown Honolulu, about 150 feet inland of Nimitz Highway. AR 247 at 731; *see also* AR 62527 at 62527-37, 62682 at 62682-85 (photographs of the park and surrounding area). It is surrounded by high-rise buildings and the at-grade Nimitz Highway. AR 247 at 731. The park provides shade in the busy downtown area and is primarily used by pedestrians walking through the area. *Id.* It contains a fountain and a seating area, and is bordered by mature palm trees. *Id.*; *see also id.* at 690 (noting that Walker Park provides shade, but has no benches, picnic tables, or other amenities). The park is eligible for the National Register for its associations with the development of the waterfront and central business district and as an early example of created greenspace in that area. *Id.* at 744. Accordingly, Walker Park is eligible for Section 4(f) protection both as a public park and a historic site.

A number of supporting documents in the record discuss Walker Park. The Historic Effects Report noted that the inland edge of the rail project guideway would be about twenty feet from the seaward edge of the park boundary. AR 39555 at 39861. The Report concluded, however, that there would be no adverse effect on Walker Park's historic features because the Project would not affect the property's integrity of location nor alter its design elements. *Id.* The Report also stated that no historically significant viewsheds to or from the property were identified, that no audible or atmospheric effects to the property were identified, and that the project would not diminish Walker Parker's expression of its historic character. *Id.* at 39862.

A number of Noise and Vibration Technical Reports were prepared for the project. *See* AR 33642, 42163, 72897. To create these reports, the FTA conducted noise measurements at representative locations along the project corridor to establish existing environmental noise conditions. AR 33642 at 33651. An October 2009 Report established that a location near Walker Park experienced 67 decibels of existing noise, and that the project noise exposure would be 65 decibels, below the FTA threshold for unacceptable noise impacts. AR 72897 at 72926.

The FEIS concluded that there would be no adverse noise and vibration impacts to Walker Park. AR 247 at 729. In addition, Walker Park would not be constructively used because the Project would not change views from within the park of the business district it serves and would not substantially impair the park's historic associations. *Id.* at 731, 744; *see also* AR 30 at 181-82 (stating that the project will nominally affect seaward views from the park, but not views of the business district it serves); *but see id.* at 540-41 (noting that trains traveling on the guideway will create light and glare and that overall visual effects in the area of the Dillingham Transportation Building will be significant).

Defendants considered impacts to Walker Park both as a park and as a historic site, and Plaintiffs have not specified any historically significant views that will be impacted by the railway. Plaintiffs complain that Defendants did not examine historic documents describing the park, but because they nevertheless considered the historic integrity of the park, they were not required to do so. Moreover, the FEIS analyzed the impact to the park's visual qualities and found that the surrounding trees would protect the park. Plaintiffs also complain about the sound impact analysis in the FEIS, but Plaintiffs mistakenly rely on raw, unanalyzed sound data in the record, *see* AR 22575 at 22649-50. In any case, Walker Park is mainly used as a pedestrian thoroughfare and there is no evidence that quiet and serenity are significant features of the park necessitating special protection. Defendants' determination that Walker Park would not be used was neither arbitrary nor capricious.

c. Irwin Park

Plaintiffs challenge Defendants' no-use determination as to Irwin Park, claiming that Defendants never analyzed noise impacts on Irwin Park and that Defendants did not analyze the project's impact on protected landscape features of the park. Irwin Park consists primarily of parking lots with grass medians and is adjacent to Aloha Tower and Piers 10/11. AR 39555 at 39865; *see also id.* at 39869-70 (visual simulation of effects). The inland setting of the park contains Nimitz Highway and non-historic high-rise

development. *Id.* at 39866. The park mostly serves as a parking lot for surrounding office buildings, but has high-quality scenic seaward views and provides seating areas heavily used at lunchtime by workers. AR 247 at 690, 731. The park is eligible for listing on the National Register because of its associations with the beautification of the waterfront and with William G. Irwin, and because it represents the work of leading landscape architect, Robert O. Thompson. *Id.* at 746. The Project will be located in the median of the highway, seventy feet inland of the park and 200 hundred feet inland of the main seating area. *Id.* at 732.

The Historic Effects Report found that the Project would not alter design elements or features of the park, would have no effect on the property's integrity of design or setting, and would not alter any historically significant views. AR 39555 at 39866. Additionally, there were no audible or atmospheric effects identified. *Id.* The Noise and Vibration Report measured sound at the nearby Aloha Tower Marketplace, one of the locations considered representative of "all noise-sensitive land uses along the corridor," and found that the Project would have no serious sound impacts on the area. AR 33642 at 33695, 33673; *see also* AR 72897 at 72919 (predicting noise impacts for sites near Irwin Park).

The FEIS concluded that there would be no constructive use of the park, considered both as a public park and a historic site. AR 247 at 732. There would be no noise impact at the nearby Aloha Marketplace above existing levels.[4] *Id.* at 561. The project would not cause noise and vibration impacts and would only partially obstruct views towards non-historic office buildings. *Id.* at 732. Views of the water from the park and views of the park from the harbor or Aloha Tower would not be obstructed and the

[4] Plaintiffs complain that the FEIS' noise impact conclusions were derived from measurements taken away from Irwin Park at a busy marketplace. However, Irwin Park is an urban park adjacent to a heavily-used highway, and it was not unreasonable for Defendants' experts to rely on sound measurements taken at a representative location only a block away from Irwin Park.

historic attributes of the park would not be impaired. *Id.* at 746-47. Defendants also thoroughly considered the park's historic attributes, including its landscaping and the "feeling" of the park. Their decision, thus, was not a violation of Section 4(f).

d. Mother Waldron Park

Finally, Plaintiffs argue that Defendants' no-use determination for Mother Waldron Park is erroneous, because there was no analysis of the noise impacts on the park and because the project will have negative impacts on the park's historic and artistic features. Mother Waldron Park contains a playground with Art Deco architectural and landscape design elements and is eligible for listing in the National Register because of its association with the nationwide playground movement and as an excellent example of Art Deco design by a well-known architect. AR 39555 at 39909; *see also* AR 153157 at 153169 (National Register nomination form for Mother Waldron Park, noting that it is a flat, open, landscaped area containing one of only two playgrounds in Honolulu that retains its historic integrity); AR 62630-35 (photographs of the park). The park is set in a mixed-use commercial and industrial area and is surrounded by vacant lots, warehouses, commercial buildings, and an apartment building. AR 247 at 732. The guideway will be twenty feet away from the park boundary, about seventy feet from the playground and 290 feet from the volleyball court. *Id.* The guideway will be thirty-five to forty feet high. *Id.* at 747.

Unlike the other Section 4(f) sites discussed above, there is a great deal of evidence in the record that the project's impacts on Mother Waldron Park will be quite serious. The Historic Effects Report observed that the Project would have an adverse effect on the historic playground, because the playground is primarily an outdoor recreation facility and so the Project would adversely affect the integrity of the park's setting. AR 39555 at 39909. The guideway would introduce a new element into the setting in close proximity and would therefore affect the park's feeling and historic character; the park has high integrity of feeling, conveying its origins as a New Deal-era

park, and the guideway is out of character with the historic appeal of the playground. *Id.* at 39910. The Visual and Aesthetic Resources Technical Report includes a visual simulation of the project's effects on the park and concludes that the overall visual effect would be high. AR 33496 at 33599-602. The FTA also commented on the FEIS, noting that there would be "devastating" impacts on seaward views of and over the park from the apartment buildings inland of the guideway. AR 72988 at 72998.

The FEIS and ROD glossed over these troubling observations. The FEIS concluded that Mother Waldron Park would not be constructively used because there would not be a substantial impairment of any visual or aesthetic features that contribute to the park's use and enjoyment. AR 247 at 732. In addition, the FEIS concluded that, while the visual impacts of the project on the park would be significant and would contrast significantly with the scale and character of the park, *id.* at 512, primary views of the playground would not be eliminated and the project would not substantially impair the park's design elements. *Id.* at 747. Finally, the FEIS provided noise measurements taken at Mother Waldron Park indicating that the noise exposure would be below the FTA's impact criteria. *Id.* at 561; *see also* AR 72897 at 72920. The PA likewise concluded that there would be no impact to the park from the Project and that it would not affect design elements or aesthetic features that contribute to the park's use and enjoyment, although there would be an effect to the setting. AR 30 at 185.

Because the FEIS and PA did not adequately address why alterations to Mother Waldron Park's historic setting did not amount to constructive use, the no-use determination was arbitrary and capricious. *Cf. I-CARE*, 770 F.2d at 441-42. Before continuing with any part of the Project that may constructively use Mother Waldron Park, Defendants must reconsider their no-use determination, taking full account of evidence that the Project will significantly affect the park. If Defendants conclude that the Project will, in fact, constructively use Mother Waldron Park, they must seek prudent and feasible alternatives to such use, or otherwise mitigate any adverse impact from

constructive use of the park. 49 U.S.C. § 303(c). The ROD must be supplemented accordingly. The FEIS must also be supplemented, to the extent that this process affects its analysis or conclusions. *N. Idaho Cmty. Action Network*, 545 F.3d at 1157.

3. Section 4(f) Alternatives Analysis and Planning

a. Feasible and Prudent Alternatives

The FTA may only approve a project using a public park or historic site if there is no prudent and feasible alternative to using that land. 49 U.S.C. § 303(c). Accordingly, a Section 4(f) evaluation must include sufficient supporting documentation to demonstrate why there is no feasible and prudent avoidance alternative. 23 C.F.R. § 774.7. A feasible and prudent alternative "avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property." 23 C.F.R. § 774.17. An alternative is not feasible if it cannot be built as a matter of sound engineering judgment. *Id.* An alternative is not prudent if, among other things, it "compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need" or it "results in additional construction, maintenance, or operational costs of an extraordinary magnitude." *Id.*

I. Managed Lanes Alternative ("MLA")

Plaintiffs claim that the MLA was a feasible and prudent alternative to the use of Section 4(f) sites in downtown Honolulu, including Chinatown and the Dillingham Transportation Building, and that Defendants erroneously failed to consider it as such. Defendants respond that the MLA was imprudent because it did not satisfy the purpose and need of the Project.

Ninth Circuit case law is clear that alternatives that do not accomplish the stated purpose of a project may be rejected as imprudent. *See Alaska Ctr. for the Env't v. Armbrister*, 131 F.3d 1285, 1288-89 (9th Cir. 1997) (holding that if an alternative does not meet the purpose of a project, then the agency does not need to show that "unique problems" or "truly unusual factors" make the alternative imprudent under Section 4(f));

Ariz. Past & Future Found., 722 F.2d at 1428; *see also City of Alexandria*, 198 F.3d at 873 (noting that the D.C. Circuit has squarely held that an alternative cannot be prudent if it does not satisfy the transportation needs of the project). The guidance laid out in the FHWA Section 4(f) Policy Paper further supports this conclusion. *See* AR 21938 at 21945 (explaining that any alternative that is determined not to meet the need of the project is not feasible and prudent).

The stated purpose of the FEIS was to provide high-capacity rapid transit in the highly congested east-west transportation corridor between Kapolei and UH Manoa; to provide faster, more reliable public transportation service than could be achieved by buses in mixed-flow traffic; to provide reliable mobility in areas where people of limited income and an aging population live; to serve rapidly developing areas of the study corridor; and to provide an alternative to private automobile travel. AR 247 at 312. Assuming that this purpose was not overly narrow, a possibility discussed in further detail in Part III.B, *infra*, then the MLA was legitimately rejected as imprudent as long Defendants did not arbitrarily and capriciously conclude that the MLA failed to meet the purpose of the Project.

The FEIS explained that the MLA was considered during the AA but was rejected because it would not meet the Project's purpose and need; specifically, the MLA would not moderate congestion, would be less effective at providing faster and more reliable transportation service and alternatives to private automobile travel, and would not support transportation equity. AR 247 at 321-27. The ROD confirmed that the MLA was eliminated because it failed to meet the Project's purpose, because it would not have improved mobility or reliability in the corridor. AR 30 at 36. These conclusions were based on the AA, which found after detailed study of two versions of the MLA that it would result in an increase in vehicle hours of delay and would not encourage smart growth. AR 9434 at 9541-42. Moreover, buses using the MLA would continue to be affected by congestion at entry and exit points from the elevated lanes. *Id.* at 9544.

Plaintiffs cite a response letter from HonoluluTraffic.com, dated November 4, 2009, subsequent to the close of the FEIS comment period, as evidence that the MLA would serve the purpose of the project, because it would greatly expand transit ridership and reduce traffic congestion. AR 71958 at 71960.[5] The letter cited a micro-simulation study showing that the MLA would reduce drive times even for people who never used the lanes. *Id.* at 71959. This evidence is not enough to demonstrate that Defendants' determination to the contrary was arbitrary and capricious. The record indicates that Defendants reasonably relied on the opinions of their own experts and decided that the MLA would not meet the purpose and need of the Project, therefore making it an imprudent alternative.

Still, Plaintiffs argue that this determination was not sufficient to satisfy Section 4(f), because Defendants did not *explicitly* state in the FEIS or the ROD that the MLA was imprudent because it did not meet the purpose of the Project. Plaintiffs point to no statute, regulation, or case requiring that Section 4(f) findings be made explicit in the record, however. "Magic words" are not required in a Section 4(f) analysis and courts may not "fly speck" a determination if it appears that all factors and standards were considered. *Adler*, 675 F.2d at 1095; *see also Hickory Neighborhood Def. League v. Skinner*, 910 F.2d 159, 163 (4th Cir. 1990) ("Although the Secretary's section 4(f) evaluation does not expressly indicate a finding of unique problems, the record amply supports the conclusion that the Secretary did determine that there were compelling reasons for rejecting the proposed alternatives as not prudent."); *Coal. on Sensible Transp., Inc. v. Dole*, 826 F.2d 60, 66 (D.C. Cir. 1987) (observing that formal findings are not required in a Section 4(f) determination and that the entire record must be reviewed to ensure that there was consideration of the relevant factors and no clear error of judgment).

Review of the entire record reveals that there is ample evidence to support

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[5] Plaintiffs' argument that the MLA met the purpose and need of the Project is discussed in further detail in Part III.B, *infra.*

Defendants' determination that the MLA was not a feasible and prudent alternative for Section 4(f) purposes because it did not serve the project's purpose and need. The FEIS specifically noted in its Section 4(f) analysis that alternatives that would not meet the Project's purpose and need would not be prudent under § 774.17, and referenced the AA's determination that only the fixed guideway met the Project's purpose and need. AR 247 at 684. This analysis makes clear that Defendants recognized that the MLA had been found not to meet the purpose of the project in the AA; consequently, Defendants did not need to analyze the MLA's feasibility and prudence in the Section 4(f) analysis, because was already imprudent by implication. Accordingly, Plaintiffs' argument that Defendants failed to consider the prudence of the MLA alternative is rejected.

ii. Tunnel Alternatives

Plaintiffs also argue that Defendants did not consider two feasible and prudent alternate routes for the railway system, the King Street Tunnel alignment and the Beretania Street Tunnel alignment. Both would run underground and avoid using some above-ground Section 4(f) properties, including Chinatown and the Dillingham Transportation Building. The FEIS concluded that the tunnels were not prudent, because they would have increased the cost of the project by $650 million in 2006 dollars, which would be beyond the funding in the project plan. AR 247 at 705, 719-20; *see Citizens for Smart Growth v. Sec'y of the Dep't of Transp.*, 669 F.3d 1203, 1217 (11th Cir. 2012) (holding that extraordinarily high costs are sufficient foundation for finding an alternative imprudent). The rail project alternative actually adopted in the FEIS was estimated to cost $4.3 billion in 2009 dollars. *Id.* at 756-59.

Plaintiffs first argue that the $650 million estimate is not supported by the record, and that even a $650 million increase in project costs is not an "extraordinary" increase in cost such that the tunnel alternatives are rendered imprudent. Second, they claim that only the King Street Tunnel will cost $650 million, while the Beretania Street Tunnel would be cheaper, and that the FEIS therefore failed to adequately consider the Beretania

Street route.

As to Plaintiffs' first claim, there is good support in the record for the $650 million figure for the King Street Tunnel alternative. *See* AR 9434 at 9523, 9540 (noting that the King Street Tunnel alignment is the most expensive of the tunnel alignments); 67416 (Final Capital Costing Memorandum, 2006). Plaintiffs point to a 2007 cost estimate indicating that the King Street Tunnel would be significantly less expensive, AR 65304, but that report specifically noted that its estimates only covered construction costs and did not include utility relocation costs, underground station costs, track work, or other maintenance costs. *See id.* at 65334. Accordingly, it was not arbitrary and capricious for Defendants to conclude that the King Street Tunnel would cost $650 million in 2006 dollars.

Plaintiffs point out that a $650 million cost increase amounts to less than twenty percent of the total cost of the project without any tunnel. There is little guidance in prior case law discussing when a cost increase becomes excessive enough to make an alternative imprudent. *See Concerned Citizens Alliance, Inc. v. Slater*, 176 F.3d 686, 703 (3d Cir. 1999) (holding that costs were of a sufficiently extraordinary magnitude when building an alternative would cost many times the amount that the construction of the preferred alternative would cost). However, whether viewed as a dollar amount or as a percentage of the Project's total cost, giving at least some deference to the agency's financial judgment, the Court cannot conclude that it was arbitrary and capricious for Defendants to conclude that an additional $650 million would be an extraordinary added cost. Accordingly, Plaintiffs' claim that Defendants' determination that the King Street Tunnel alternative was imprudent for cost reasons is rejected.

The record is less clear, however, as to the exact cost estimate for the Beretania Street Tunnel, and Defendants admit that it might have been less costly than the King Street route. *See* AR 9434 at 9523, 9540; Doc. 157 at 29 n.13. The FEIS nevertheless rejected *both* the King Street and Beretania Street alternatives as imprudent based on the

$650 million cost estimate. *See* AR 247 at 705, 719-20.

Defendants now offer a number of reasons why the Beretania Street Tunnel did not meet the purpose and need of the Project, which they argue rendered it imprudent, even if the FEIS nowhere explicitly so found. Defendants suggest that the Beretania Tunnel would have posed risks to below-ground cultural resources, might have encountered groundwater during construction, and would have disturbed large areas on the surface downtown. *See* AR 65304 at 65321 (Tunnels and Underground Stations Technical Memorandum, generically describing possible problems with groundwater and the likelihood that hard rock tunneling would be necessary along the Beretania route), 65321 (noting the risk of shallow groundwater and ground and structure settlement during tunnel construction), 65328-29 (describing safety, noise, traffic, dust, and other concerns as a result of excavation and construction of tunnels). But other portions of the record indicate that the Beretania Street route could have been excavated using a tunnel boring machine, which would not disturb the surface and would dig at a level below most burial sites. AR 50082 at 50157 (Environmental Consequences Draft); *cf.* AR 51561 at 51595 (specifically noting that the *King Street alignment* could cause structural damage on adjacent sensitive buildings and could encounter groundwater issues).

As further justification for their decision, Defendants argue that the Beretania alignment would not serve the Project's purpose because it would not go to Ala Moana Center and would consequently serve fewer passengers. There is some indication in the record that this was a concern about the Beretania route. *See* AR 9434 at 9520 (noting that the Beretania Street Tunnel route would serve the fewest residents and jobs), 9540 (observing that the Beretania Street Tunnel route would provide poor transit benefits).

In other words, while Defendants have pointed to some justifications that could have provided support for a decision to reject the Beretania Tunnel alternative as imprudent, none of these concerns was articulated in the FEIS. In fact, at no point in the record did Defendants explicitly conclude that the Beretania alignment was either

inconsistent with the purpose and need of the Project or imprudent for any reason not related to cost concerns. While Section 4(f) review is based on a review of the entire record, *see Overton Park*, 401 U.S. at 420, Defendants' explanations appear to be *post hoc* rationalizations for their decision to reject the Beretania route. Defendants' failure to include full analysis of whether the Beretania option was a prudent and feasible alternative during the DEIS, FEIS, and ROD process was arbitrary and capricious.

Defendants must fully consider the prudence and feasibility of the Beretania tunnel alternative specifically, and supplement the FEIS and ROD to reflect this reasoned analysis in light of evidence regarding costs, consistency with the Project's purpose, and other pertinent factors. *See Citizens for Smart Growth*, 669 F.3d at 1217. Should Defendants determine, upon further examination of the evidence, that their previous decision to exclude the Beretania alternative because it would be imprudent was incorrect, they must withdraw the FEIS and ROD and reconsider the project in light of the feasability of the Beretania tunnel alternative. *See Alaska Wilderness Recreation & Tourism Ass'n v. Morrison*, 67 F.3d 723, 729 (9th Cir. 1995) ("The existence of a viable but unexamined alternative renders an environmental impact statement inadequate.").

iii. Alternative Technologies

Plaintiffs claim that Defendants should have considered two alternative technologies, bus rapid transit and at-grade light-rail, as feasible and prudent alternatives that would avoid Section 4(f) sites. The FEIS and ROD rejected both of these technologies as not meeting the purpose and need of the Project and so, if that determination was proper, then both alternatives were properly found imprudent for the same reasons explained with respect to the MLA above. AR 247 at 324 (FEIS concludes that bus rapid transit would not meet purpose and need of the Project because buses would still operate in mixed traffic, congestion would not be alleviated, and it would not have encouraged growth in the project corridor); AR 30 at 35 (ROD explains that at-grade light-rail would not have met Project's purpose and need because it would not have

satisfied the mobility and reliability needs of the Project, as capacity would be too low, traffic lanes would need to be removed, and congestion would have been exacerbated).

There is ample support in the record for these determinations. Defendants consistently maintained in the FEIS and the ROD, as well as in their responses to comments, that the bus system would not alleviate congestion because of the problems with a mixed traffic system, and that at-grade rail would not satisfy the Project's objectives because it would have to consist of smaller railcars that would stop cross-traffic as they passed and be forced to halt if traffic accidents occurred. *See* AR 247 at 321-324; AR 30 at 35; AR 855 at 974-75. Accordingly, Defendants' decision not to consider these alternatives further was neither arbitrary nor capricious.

b. All Possible Planning

In order to approve a project that uses Section 4(f) sites, an agency must also include all possible planning to minimize harm to section 4(f) property. 23 C.F.R. § 774.3(c)(2). "All possible planning means that all reasonable measures identified in the Section 4(f) evaluation to minimize harm or mitigate for adverse impacts and effects must be included in the project." 23 C.F.R. § 774.17. The "all possible planning" clause requires that the federal agency make reasonable efforts to minimize harm to Section 4(f) sites by balancing the harm to the site by the proposed project with the harm to the same site by another alternative or a plan to implement mechanisms that would diminish that particular harm. *Adler*, 675 F.2d at 1094.

Plaintiffs argue that Defendants failed to include all possible planning in their Section 4(f) evaluation because they did not evaluate the use of Chinatown, as a TCP, by the Project passing through the district, and because Defendants failed to take into account that the railway would block views of the harbor from Chinatown. Defendants argue in response that they satisfied their planning obligations as to Chinatown, a historic site, when they entered into the PA pursuant to NHPA § 106.

In support of their contention that entering into a PA is all that is required to satisfy

their obligation to include "all possible planning" to minimize harm to Section 4(f) sites, Defendants point to the language of § 774.17:

> With regard to historic sites, the measures normally serve to protect the historic activities, features, or attributes of the site as agreed by the Administration and the official(s) with jurisdiction over the Section 4(f) resource in accordance with the consultation process under 36 C.F.R. part 800.

23 C.F.R. § 774.17. The plain meaning of this regulation indicates that engaging in "all possible planning" will *normally* serve to preserve the protected attributes of historic properties; it does not state that satisfying NHPA by entering into a PA will always and automatically satisfy Section 4(f) planning requirements. *See* AR 21948-49 (policy paper noting that mitigation of historic sites *usually* consists of those measures agreed to in accordance with the NHPA). In other words, it is conceivable that further reasonable mitigation possibilities could exist beyond those explored in a PA, and those must be considered to satisfy Section 4(f). In this case, the FEIS notes that the guideway was designed to be as narrow as possible in order to avoid negative impacts to Chinatown, and that community input will be sought on the Chinatown station design. The PA includes further measures to deal with cultural properties discovered during construction. AR 247 at 718-20; AR 30 at 61, 105-06. Plaintiffs have not suggested any reasonable mitigation measures that Defendants could have undertaken, but did not, in order to further mitigate impacts on Chinatown. Defendants have satisfied the "all possible planning" requirement, given these mitigating features described in the FEIS and PA.

B. NEPA Claims (Counts 1-4)

1. Purpose and Need

Plaintiffs claim that the statement of purpose and need in the FEIS was too narrow, thereby dictating that an elevated fixed guideway railway would be the only alternative that could meet the Project's stated purpose. An EIS is required briefly to specify the underlying purpose and need to which the agency is responding in proposing the alternatives in the EIS. 40 C.F.R. § 1502.13. The purpose and need statement in the

FEIS here was quite lengthy and specific. The following purposes were specified: (1) to provide high-capacity rapid transit in the highly congested corridor between Kapolei and UH Manoa; (2) to provide faster, more reliable public transportation than could be achieved by buses operating in congested mixed-flow traffic; (3) to provide reliable mobility in areas where people of limited income and an aging population live; (4) to serve rapidly developing areas; and (5) to provide additional transit capacity and an alternative to private automobile travel and to improve transit links. AR 247 at 312; *see also* AR 9696 at 9697-98 (stating similar goals in the 2007 NOI). Ultimately, only a fixed guideway rail system was determined to meet this purpose and need, and, as a result, the FEIS analyzed three fixed guideway rail systems using the same technology but traveling slightly different routes, as well as a no-build alternative. AR 247 at 319-37.

Defendants assert that this statement of purpose and need was developed throughout the AA process to respond to local needs and federal statutory goals.[6] Agencies enjoy "considerable discretion" in defining the purpose and need of a project, but they cannot define the project's objectives in "unreasonably narrow terms," such that only one alternative would accomplish the goals of the project and the EIS becomes a foreordained formality. *Nat'l Parks & Conservation Ass'n v. Bureau of Land Mgmt.*, 606 F.3d 1058, 1070 (9th Cir. 2010); *see also Davis v. Mineta*, 302 F.3d 1104, 1118-20 (10th Cir. 2002). On the other hand, an agency may not frame its goals in terms so unreasonably broad that an infinite number of alternatives would accomplish those goals. *Citizens Against Burlington v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991). A district court evaluates an agency's statement of purpose for reasonableness. *Nat'l Parks &*

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[6] Federal regulations provide that an agency may use federally-supervised state-developed planning studies in order to produce a purpose and need statement. 23 C.F.R. § 450.318(a); *see also* 23 C.F.R. Pt. 450 App'x A at 11 ("With proper documentation and public involvement, a purpose and need derived from the planning process can legitimately narrow the alternatives analyzed in the NEPA process."). This is the process that Defendants followed.

Conservation Ass'n, 606 F.3d at 1070.

In assessing the reasonableness of a purpose and need statement in an EIS, the court must consider the statutory context of the federal action at issue. *League of Wilderness Defenders v. U.S. Forest Serv.*, 689 F.3d 1060, 1070 (9th Cir. 2012); *see also Citizens Against Burlington*, 938 F.2d at 196 (stating that "an agency should always consider the views of Congress, expressed, to the extent that the agency can determine them, in the agency's statutory authorization to act, as well as in other congressional directives"); *City of New York v. U.S. Dep't of Transp.*, 715 F.2d 732, 743 (2d Cir. 1983) ("Frequently, a pertinent guide for identifying an appropriate definition of an agency's objective will be the legislative grant of power underlying the proposed action.").

In this case, the statement of purpose and need, while highly detailed, was broad enough to allow the agency to assess various routing options and technologies for the fixed guideway. In addition, the stated purposes clearly and faithfully reflect the objectives of the statutes under which the FEIS arose. Specifically, 23 U.S.C. § 139(f)(3), one of the provisions of the Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users ("SAFETEA-LU"), provides that a federally-funded transportation project's purposes may include achieving a transportation objective identified in a local plan, supporting land use and growth objectives established in applicable federal, state, local, or tribal plans, and serving other national objectives, as established in federal law, plans, or policies. *See also* AR 22836 at 22858. The statute authorizing the federal New Starts transportation program states that it is in the interest of the United States to foster transportation systems that maximize safe, secure, and efficient mobility of individuals, minimize environmental impacts, and minimize fuel consumption. 49 U.S.C. § 5301(a). That statute also states that one of the purposes of the New Starts program is to provide financial assistance to state and local governments in order to improve mobility for elderly and economically disadvantaged individuals. § 5301(f)(4).

Providing high-capacity rapid transit in a specific congested corridor is an objective meant to achieve a local transportation objective articulated in a local transportation plan, consistent with SAFETEA-LU. § 139(f)(3)(A). Providing faster, more reliable public transit and providing reliable service to the poor and elderly similarly serves the goals of the New Start program. § 5301(a), (f)(4). Serving rapidly developing areas of the study corridor supports a local growth objective. 23 C.F.R. § 139(f)(3)(B). Finally, the provision of an alternative to private automobile travel arguably serves the purpose of minimizing environmental impacts and fuel consumption. § 5301(a). Because the statement of purpose and need did not foreclose all alternatives, and because it was shaped by federal legislative purposes, it was reasonable. Plaintiffs' argument to the contrary is accordingly rejected.

2. Reasonable Alternatives

An EIS must include a detailed statement on alternatives to the proposed action. 42 U.S.C. § 4332(2)(C)(iii). The alternatives analysis "is the heart of the environmental impact statement" and must "rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." 40 C.F.R. § 1502.14.

"In reviewing the sufficiency of an EIS, we employ 'a rule of reason' standard of review 'that inquires whether an EIS contains a reasonably thorough discussion of the significant aspects of the probable environmental consequences.'" *Ilio'ulaokaokalani Coal. v. Rumsfeld*, 464 F.3d 1083, 1095 (9th Cir. 2006) (quoting *California v. Block*, 690 F.2d 753, 761 (9th Cir. 1982)) (additionally noting that this standard "is not materially different than arbitrary and capricious review"). The agency must consider those reasonable alternatives that are within the range dictated by the nature and scope of the proposed action and sufficient to permit a "reasoned choice." *Friends of Yosemite Valley v. Kempthorne*, 520 F.3d 1024, 1038 (9th Cir. 2008). The touchstone for this inquiry is whether an EIS' selection and discussion of alternatives fosters informed decision-making

by the agency and informed public participation. *Block*, 690 F.2d at 767.

There are some limits on an agency's duty to consider alternatives. An agency is under no obligation to consider every possible alternative to a proposed action, nor must it consider alternatives that are unlikely to be implemented or inconsistent with its basic policy objectives. *Seattle Audubon Soc'y v. Moseley*, 80 F.3d 1401, 1404 (9th Cir. 1996). There is no statutorily required minimum number of alternatives that must be considered and alternatives that do not advance the purpose of the project are not reasonable. *Native Ecosystems Council v. U.S. Forest Serv.*, 428 F.3d 1233, 1246 (9th Cir. 2005); *Akiak Native Cmty. v. U.S. Postal Serv.*, 213 F.3d 1140, 1148 (9th Cir. 2000). There is also no need separately to analyze alternatives that are not significantly distinguishable from those already considered or which have substantially similar consequences. *Headwaters, Inc. v. Bureau of Land Mgmt.*, 914 F.2d 1174, 1181 (9th Cir. 1990).

Plaintiffs challenge Defendants' assessment of reasonable alternatives under NEPA on a variety of grounds. During the AA process, Defendants considered an improved bus system and the MLA, but rejected them as inconsistent with the purpose and need of the Project; those two options were therefore not carried over to the FEIS. AR 247 at 321-27. As previously discussed, three fixed guideway routes and the no-build alternative were analyzed in the FEIS. *Id.* at 331. Plaintiffs argue that: (1) it was improper to remove alternatives from consideration during the AA process; (2) the MLA was rejected based on bad data and would, in fact, meet the purpose and need of the Project; (3) alternate rail technologies, such as magnetic levitation, were erroneously excluded from consideration as reasonable alternatives in the FEIS; and (4) Defendants erroneously refused to consider a route that would not pass by the federal courthouse. Each of these claims is addressed below in turn.

a. Use of the AA Process to Screen Alternatives

Federal regulations require that federal agencies cooperate with state and local agencies to the fullest extent possible in order to reduce duplication between NEPA and

state and local requirements. 40 C.F.R. § 1506.2; *see also Laguna Greenbelt*, 42 F.3d at 524 & n.6. A state-prepared AA can be used to comply with NEPA, as long as it meets certain prerequisites, including that: (1) the federal lead agency furnished guidance in the AA's preparation and independently evaluated the document, 23 U.S.C. § 139(c)(3); and (2) the AA was conducted with public review and a reasonable opportunity to comment, 23 C.F.R. § 450.318(b)(2)(ii)-(iii); *see also* AR 22836 at 22850 (AA result must be subject to public review and comment during the scoping of the EIS). A satisfactory AA can be used to screen preliminarily and eliminate unreasonable alternatives. 23 C.F.R. § 450.318(a), (d); *see also* 23 C.F.R. Pt. 450 App'x A at 12 ("Alternatives passed over during the transportation process because they are infeasible or do not meet the NEPA 'purpose and need' can be omitted from the detailed analysis of alternatives in the NEPA document, as long as the rationale for elimination is explained in the NEPA document.").

Plaintiffs argue that the AA used to eliminate the MLA from further consideration was inadequate, because it was not supervised by the FTA and because it was not subject to public comment. The record belies both of these assertions. There are a number of documents that indicate that the FTA played an active role in shaping, overseeing, and approving the AA. *See* AR 30 at 33 (ROD approval of AA); AR 150766 (internal FTA discussion about AA logistics); AR 150107 (City representative wrote to FTA to check about MLA's eligibility for federal funding); AR 150091 (FTA indicated that it would review AA prior to publication).

There were also many opportunities for public comment on the alternatives discussed in the AA. *See* AR 247 at 296 (City Council considered over 3,000 comments from the public on the AA before selecting the locally preferred alternative); AR 9434 at 9435 (AA states that City Council will conduct public hearings to solicit community views on the evaluated alternatives), 9554 (AA notes that over 200 meetings were held with members of the public while developing the AA); AR 16601 (AA Scoping Report published prior to release of AA); AR 68621 (City Council held thirteen public meetings

where public comment was sought on the AA).

Although the 2007 NOI may have discouraged public comment on the alternatives that had already been considered and rejected in the AA, there was sufficient opportunity on the whole for public comment both before publication of the AA and during the City Council meetings following publication. AR 9696 at 9699 ("Other reasonable alternatives suggested during the scoping process may be added if they were not previously evaluated and eliminated for good cause on the basis of the Alternatives Analysis and are consistent with the project's purpose and need."); *see also* AR 17157 at 17172 (NEPA Scoping Report states that "[c]omments that focus on a preference for alternatives that have previously been evaluated and eliminated from consideration are included in the appendices to this report but are neither summarized nor considered."). Accordingly, use of the AA to remove alternatives from consideration was not contrary to the statute or the regulations. Plaintiffs' argument to the contrary is therefore rejected.

b. MLA

Plaintiffs argue that the MLA was excluded from consideration as a reasonable alternative based on improper use of a version of the proposal that was designed to fail to meet the purpose and need, in conjunction with bad data. They contend that Defendants used this version of the MLA as a "straw man" to make the rail alternative look more appealing. In essence, Plaintiffs argue that Defendants erred when they did not consider the exact version of the MLA proposed by HonoluluTraffic.com in the AA.

HonoluluTraffic.com made a number of comments along these lines throughout the administrative process. *See* AR 855 at 2018-31; AR 16601 at 16715-27; AR 17157 at 17223-27; AR 71958 at 71958-60. It complained that the cost estimates for the MLA in the AA were "preposterous" because they were seven times higher than a comparable three-lane expressway built in Tampa; it argued that a cost estimate of $900 million was more accurate. AR 17157 at 17223-27. HonoluluTraffic.com also asserted that the AA underestimated the number of riders that would use the MLA, "killed the MLA

advantage" by extending the expressway's length and allowing HOVs to use it for free, and erroneously concluded that the MLA would never be eligible for New Starts Funding. *Id.* Finally, HonoluluTraffic.com insisted that the AA should have considered a three-lane version of the MLA, not just a two-lane version, as well as additional ingress and egress options. *Id.*

In support of the assertions made in the HonoluluTraffic.com comment letters, Plaintiffs point to an open letter written by an official involved in the construction of the Tampa elevated expressway project. AR 17157 at 17245-48. The official alleged that Defendants had intentionally misrepresented the facts associated with the cost and operation of the Tampa project in order to obscure the possibility that the MLA could provide congestion relief in Honolulu. *Id.* Plaintiffs also cite to comments made by the Transit Advisory Task Force on the MLA. AR 70839 at 70878-79 (suggesting that Defendants explore new ingress and egress options on the MLA to alleviate congestion and explain why the zipper lane was discontinued in the AA design of the MLA). Finally, Plaintiffs cite to a number of comments made by FTA employees about the MLA. *See* AR 150902 (FTA employee informs City that MLA is eligible for federal-aid highway funding, but states, "I don't speak for FTA Region 9."); AR 151052 (FTA staff member states that the MLA was supported by the right milestones and methodology); AR 151149 (FTA staff member recommends that the MLA be considered in the DEIS); AR 151155 (FTA staff member writes that MLA appears to be reasonable on its face).

Defendants' decision to limit their analysis to the two-lane versions of the MLA explored in the AA did not violate "the rule of reason." Indeed, Defendants addressed the many design alterations suggested by Plaintiffs' comments and found that they were not substantial. AR 247 at 798-802 (explaining that there were no substantial differences between the alternative studied in the AA and the "ideal" managed lanes option that would have resulted in a different outcome); AR 855 at 2090 (response letter to HonoluluTraffic.com explaining that zipper lane was eliminated to increase capacity in

both directions and that all of the suggested changes to the MLA design would still not fix the primary issue with the MLA, the performance of buses on local streets), 2092 (explaining that increasing the number of lanes in the MLA would not have relieved congestion and would have increased cost).

Defendants also adequately defended their MLA cost estimates; the Transit Advisory Task Force found that the Tampa project was not a good cost comparator because of the many differences between the two projects, *see* AR 55308 at 55311, that the cost estimates in the AA were "fair and accurate," and that the same costing techniques were used to price all of the alternatives analyzed in the AA. AR 855 at 2091. It was not unreasonable for Defendants to refuse to reassess a new version of the MLA in the FEIS, because there was no indication that the AA's assessment of the MLA was inaccurate or that changes to the MLA design would have made a difference. *See Headwaters*, 914 F.2d at 1181 (no need to separately analyze alternatives that are not significantly distinguishable from those already considered). Accordingly, Plaintiffs' claim that Defendants erred in refusing to consider MLA further is rejected.

c. Alternatives to Steel-Wheels-on-Steel

Plaintiffs also argue that Defendants failed to consider reasonable alternative technologies in the FEIS, including light-rail, monorail, magnetic levitation, and rubber-tired rail. These technologies were excluded from further consideration by a panel of experts during the DEIS scoping process, in favor of steel-on-steel technology. Plaintiffs complain that the panel of experts made their decision without proper public input and based on concerns such as cost, performance, and reliability, rather than the environmental advantages and disadvantages of each technology.

Defendants defend their decision to exclude alternate rail technologies on the basis that all five technologies were essentially environmentally equivalent, and an EIS need not consider indistinguishable alternatives. *See Headwaters*, 914 F.2d at 1181. There is evidence in the record that indicates that the panel of experts considered the

environmental effects of the various technologies, including air pollution, energy use, and noise impacts. AR 55188 at 55189 (panel reports that it concluded that steel wheel technology has noise impacts comparable to other technologies, better energy efficiency, and lower air quality impacts than the other four options).

In the FEIS, Defendants explained that the alternate rail technologies were eliminated because they are proprietary and did not offer substantial proven performance, cost, and reliability benefits compared to steel-on-steel technology. AR 247 at 790-91; *see also* AR 9319 (steel wheel technology is reliable, safe, high speed, and non-proprietary). The FEIS noted further that magnetic levitation is unproven for general use and that steel wheel systems can be designed to match the noise levels of magnetic levitation systems when in operation. *Id.*; *see also* AR 855 at 1803-04 (City letter explains that there is only one magnetic levitation system operating in the world, that it would require more energy and block more views, and that other systems can be designed to match its noise level); *but see* AR 22575 at 22682 (raw numbers indicating that magnetic level noise levels are lower before mitigation).

Neither the panel of experts nor the FEIS included a side-by-side comparison of the environmental effects of the various technologies, to make clear to the public which technologies provided the most environmental benefit. *See Block*, 690 F.2d at 767 (the touchstone for NEPA review is whether an EIS' selection and discussion of alternatives fosters informed decision-making by the agency and informed public participation). It is nevertheless clear that there were extensive opportunities for public comment on the various proposed rail technologies. *See* AR 247 at 283 (FEIS describes scoping process); AR 855 at 1803-04 (letter from City noting that public comments on each technology were accepted); AR 17157 at 17160-61 (NEPA scoping report describes public comments received at scoping meetings and in writing).

Because Defendants have presented adequate evidence that the environmental advantages of each technology were considered by the panel, and have shown that the

public had ample opportunity to comment, their decision to exclude alternate rail technologies from the FEIS was not arbitrary and capricious.

d. Alternatives to Route Past Courthouse

Finally, Plaintiffs argue that Defendants failed to consider reasonable alternatives to a route running past the federal courthouse because such routes would require approval from the City Council. For support, Plaintiffs rely on a letter written by locally-based federal judges expressing their concern about the positioning of the rail project past the courthouse. AR 855 at 930-34. Plaintiffs claim that the letter states that the judges spoke to the Chief of the City's Rapid Transit Division, who told them that alternative alignments were unlikely to be considered *because* they would require the approval of the City Council. In fact, the judges' letter states that the Chief said he did not feel there are any viable alternatives *and* that any change would require City Council approval. *Id.* There is nothing in the record to indicate that Defendants ever decided not to evaluate alternate routes because they wanted to avoid the need for City Council approval. *See, e.g.*, AR 855 at 937-38 (City letter in response to federal judges' letter explaining why the alignment had been selected). Plaintiffs' claim is unsupported by the record and is, therefore, rejected.

3. Analysis of Environmental Consequences

An EIS must contain a "reasonably thorough discussion" of a project's environmental consequences and mitigation measures. *Nat'l Parks & Conservation Ass'n*, 606 F.3d at 1072-73; *see also* 42 U.S.C. § 4332(2)(C). The EIS must discuss the project's direct effects and reasonably foreseeable indirect and cumulative effects, including growth-inducing effects. 40 C.F.R. § 1502.16. However, an EIS need not discuss speculative consequences or discuss every conceivable environmental impact. *Ground Zero Ctr. for Non-Violent Actions v. U.S. Dep't of the Navy*, 383 F.3d 1082, 1089-90 (9th Cir. 2004). While the EIS must discuss mitigation in some detail, a complete mitigation plan is not necessary. *Robertson v. Methow Valley Citizens Council*,

490 U.S. 332, 352 (1989).

A court's review of the discussion of environmental consequences in an EIS is limited to assessing whether the EIS includes a "hard look" at the environmental impacts of the proposed action. *Nat'l Parks & Conservation Ass'n*, 606 F.3d at 1072. This requires a pragmatic judgment about whether the form, content and preparation of the EIS foster informed decision-making and informed public participation. *Id.*

Plaintiffs argue that the FEIS does not sufficiently examine the foreseeable environmental consequences of the Project because: (1) it does not account for potential impacts on air quality associated with fabricating and installing the guideway and transporting materials to the areas where the guideway will be built; and (2) it fails to account for the indirect and cumulative effects on land use and growth that will occur along the rail line and does not explain whether there are sensitive environmental resources that could be affected in those areas.

As to the first argument, Defendants gave the requisite "hard look" to the environmental consequences that could result from construction in the FEIS. *See* AR 247 at 551-54 (describing air pollutant emissions that will occur due to the project), 640-41 (describing effects of the construction phase), 645 (explaining that air pollution effects from construction will be limited to short-term increases in fugitive dust and airborne particulate matter and mobile-source emissions, and identifying mitigation measures). Accordingly, Plaintiffs' argument to the contrary is rejected.

As to the second, it is not entirely clear what specific environmental resources Plaintiffs contend will be threatened by the growth-inducing effects of the Project, but it is plain that Defendants also gave the required "hard look" at this issue. *See* AR 247 at 656 (noting that future development will be greatly influenced by factors outside of the control of Defendants), 657 (explaining that the project will not affect regional population, but will influence distribution and intensity of development in the study corridor and away from the less developed, more environmentally-sensitive areas of

Oahu), 672 (observing that the project is being built in an urbanized environment that will remain urbanized in the future and that the project could result in the preservation of a larger volume of undisturbed land outside of the project corridor, which would benefit ecosystems), 673 (analyzing the direct, indirect, and cumulative impacts of the project on water, street trees, and archaeological, cultural, and historic resources). This argument is therefore rejected as well.

4. Segmented Analysis

Plaintiffs claim that Defendants improperly segmented their NEPA analysis by preparing an FEIS for the rail project, which will run from Kapolei to Ala Moana Center, without also including environmental analysis of the impacts of planned extensions of the rail project between Ala Moana Center, and UH and Waikiki. Federal regulations provide that "[p]roposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement." 40 C.F.R. § 1502.4(a). This includes connected actions, cumulative actions, and similar actions, as defined in 40 C.F.R. § 1508.25(a). Federal regulations further specify that an action assessed in an EIS dealing with a transportation improvement shall: (1) connect logical termini and be of sufficient length to address environmental matters on a broad scope; (2) have independent utility or independent significance, *i.e.*, be usable and be a reasonable expenditure even if no further improvements in the area are made; and (3) not restrict consideration of alternatives or other reasonably foreseeable transportation improvements. 23 C.F.R. § 771.111(f).

Plaintiffs assert that the Kapolei to Ala Moana rail line and the Ala Moana to UH/Waikiki rail line are "connected actions." Actions are connected if they automatically trigger other actions which may require an EIS, cannot or will not proceed unless other actions are taken previously or simultaneously, or are interdependent parts of a larger action and depend on the larger action for their justification. § 1508.25(a)(1). Plaintiffs insist that the rail project was always intended to extend to Waikiki, and that the

segmentation of the project into smaller sections was an attempt to avoid analyzing environmental impacts to areas beyond the Ala Moana Center. *See* AR 9556 at 9566-68 (describing need for better rapid transit service to Waikiki, as a tourist center, and UH); AR 9696 (2007 NOI states that Defendants intend to prepare an EIS on a project running from Kapolei to UH and Waikiki); AR 9700 (2005 NOI states that travel corridor extends from Kapolei to UH and Waikiki).; AR 72134 at 72137 (letter from two City Councilmembers suggesting that the branch to Waikiki was intentionally left out of the DEIS to avoid addressing negative environmental impacts).

The Ninth Circuit applies an "independent utility" test to determine whether multiple actions are so connected as to mandate consideration in a single EIS. *Great Basin Mine Watch v. Hankins*, 456 F.3d 955, 969 (9th Cir. 2006). The court asks whether each of the two projects would have taken place with or without each other and thus have independent utility. *Id.* A number of Ninth Circuit cases have applied this test. *See, e.g.*, *id.* (concluding, in a challenge to two RODs, that the two projects were interdependent and therefore should have been assessed together); *Wetlands Action Network v. U.S. Army Corps of Eng'rs*, 222 F.3d 1105, 1112 (9th Cir. 2000), *abrogated on other grounds by Wilderness Soc'y v. U.S. Forest Serv.*, 630 F.3d 1173, 1176-78 (9th Cir. 2011) (en banc), (finding, in challenge to a single permit issuance, that permitted project had independent utility because it did not depend on completion of later, not-yet-permitted phases of the project); *Thomas v. Peterson*, 753 F.2d 754, 758 (9th Cir. 1985) (finding that an EA approving new road was improperly segmented when the EA did not consider the impact of timber sales that were the sole reason for building the road).

The rail project as defined in the FEIS, running from Kapolei to the Ala Moana Center, satisfies the independent utility test. While it is true that future extensions to Waikiki and UH may not have independent utility, Plaintiffs' challenge is not to an EIS dealing with those extensions and so the court need not address the independent utility of speculative future developments. The record amply supports the conclusion that the route

in the FEIS will serve a purpose even if the proposed extensions are never built. AR 247 at 791 (FEIS explaining that planned extensions were not included because no funding had been identified for them, but that the rail project had logical termini and independent utility from any extensions that may be constructed in the future); AR 9556 at 9568 (Ala Moana Center is served by more than 2,000 weekday bus trips and visited by more than fifty-six million shoppers annually). While the existence of the Project may strongly influence future decisions about whether an elevated rail line is built from Ala Moana to Waikiki and UH Manoa, the construction of an extension is not a foregone conclusion. Plaintiffs' argument that the NEPA analysis was impermissibly segmented is accordingly rejected.[7]

C. NHPA

Plaintiffs argue that Defendants have failed to meet their duty to assess the indirect effects that historic resources other than Chinatown and Merchant Street located near the rail stations will suffer due to the project. The NHPA requires agencies to assess whether historic properties will suffer adverse effects, which occur when an undertaking may alter, directly or indirectly, any of the characteristics that qualify a property for inclusion in the National Register. 36 C.F.R. § 800.5(a)(1). The agency must then consult with relevant parties to develop and evaluate alternatives and modifications to the undertaking that could avoid, minimize, or mitigate those adverse effects. 36 C.F.R. § 800.6(a); *Muckleshoot Indian Tribe*, 177 F.3d at 805 (observing that § 106 is a "stop, look, and listen" provision requiring agencies to consider the effects of their programs). A PA can serve as evidence of the agency's compliance with these requirements. 36 C.F.R. § 800.6(c).

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[7] Defendants contend that the FEIS did, in fact, analyze impacts of future extensions to Waikiki and UH. There is some evidence in the record to support this contention. *See* AR 247 at 554-64, 655; AR 33642 at 33654. There is, however, no need to decide that question at this time.

A review of the entire record reveals that Defendants sufficiently assessed the harm that rail station-induced growth could cause to historic sites near rail stations and set up a number of mitigation measures to deal with such effects. *See* 247 at 657-59 (recognizing that the project may increase the density of development near stations); AR 30 at 103-04 (PA providing that the City shall employ a architectural historian who shall monitor the integration of transit-oriented development and historic preservation in the vicinity of project stations), 104 (City shall monitor proposed demolition of resources built before 1969 within a 2,000 foot radius of each station), 105 (provides for meeting with consulting parties to discuss next steps if a significant adverse indirect or cumulative effect occurs to a historic resource). Defendants have therefore satisfied their duty to consult with the SHPO and to develop alternatives to mitigate possible adverse effects on historic properties. Accordingly, Plaintiffs' NHPA claim is rejected. *See Tyler v. Cuomo*, 236 F.3d 1124, 1129 (9th Cir. 2000).

III. Conclusion and Remedy

For the reasons set forth above:

A. The Court grants Plaintiffs' Motion for Summary Judgment (Doc. 109) with respect to: (1) their Section 4(f) claims that Defendants arbitrarily and capriciously failed to complete reasonable efforts to identify above-ground TCPs prior to issuing the ROD; (2) Defendants' failure adequately to consider the Beretania Street Tunnel alternative prior to eliminating it as imprudent; and (3) Defendants' failure adequately to consider whether the Project will constructively use Mother Waldron Park.

B. The Court grants Defendants' Motion for Summary Judgment (Doc. 145) with respect to all other claims raised in said motion.

C. The Court does not enter a final judgment and/or a permanent injunction at this time. While an injunction may be appropriate in this case, issuance of an injunction does not automatically follow, nor do the terms of any such injunction.

See N. Cheyenne Tribe v. Norton, 503 F.3d 836, 842 (9th Cir. 2007). Traditional standards of equity still govern. *Id.*; *Weinberger v. Romero-Barcelo*, 456 U.S. 305 (1982) (sustaining district court's refusal to enjoin Navy's violations of Federal Water Pollution Control Act where the district court, instead, ordered the Navy to apply for a permit). Even assuming the issuance of an injunction is appropriate, it must be carefully tailored to provide a balanced remedy. *See Idaho Watersheds Project v. Hahn*, 307 F.3d 815, 833-34 (9th Cir. 2002), *abrogated on other grounds by Winter v. Natural Res. Def. Council, Inc.*, 555 U.S. 7 (2008).

To achieve these ends, the court invites briefing on whether a permanent injunction and/or a declaratory judgment should issue, and the scope of any such equitable relief, in order properly to assess the balance of equities between the parties, as well as where the public interest lies. To afford the parties the opportunity to brief and argue these issues, concurrently with this Order, the Court is issuing a Scheduling Order re Remedy

IT IS SO ORDERED.

Dated this 1st day of November, 2012.

/s/ *A. Wallace Tashima*
A. WALLACE TASHIMA
United States Circuit Judge
Sitting by Designation

Appendix C—Correspondence

DEPARTMENT OF PARKS & RECREATION

CITY AND COUNTY OF HONOLULU

1000 Uluohia Street, Suite 309, Kapolei, Hawaii 96707
Phone: (808) 768-3003 • Fax: (808) 768-3053
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KIRK CALDWELL
MAYOR

TONI P. ROBINSON
DIRECTOR

JEANNE C. ISHIKAWA
DEPUTY DIRECTOR

May 22, 2013

Mr. Daniel Grabauskas
Executive Director and CEO
Honolulu Authority for Rapid Transportation
City and County of Honolulu
1099 Alakea Street, Suite 1700
Honolulu, Hawaii 96813

Dear Mr. Grabauskas:

RE: Mother Waldron Neighborhood Park; Honolulu Rail Transit Project

The Honolulu Authority for Rapid Transportation (HART) has consulted with the City and County of Honolulu Department of Parks and Recreation (DPR) pursuant to Section 4(f) of the Department of Transportation Act and other laws with regard to the potential effects of the Honolulu Rail Transit Project (HRTP) on Mother Waldron Neighborhood Park and Playground (Playground). DPR previously provided comments on the Draft Environmental Impact Statement and the Section 4(f) analysis regarding the HRTP. HART reinitiated consultation with DPR regarding the potential effects of the HRTP on the park usage after the December 2012 decision of the District Court for the District of Hawaii in Honolulutraffic.com v. Federal Transit Administration.

The Honolulu Park Board approved plans for the Playground in 1936, and Works Progress Administration workers completed the Playground in 1937. At that time, the Playground occupied 1.8 acres.

1n 1991-1992, the Hawaii Community Development Authority realigned Halekauwila Street, taking approximately 17%, or 12,700 square feet, of the Playground on the mauka end of the Playground (the playground end intended for use by younger children). The mauka end of the Playground lost its basketball and volleyball courts, wall and benches. The original playground equipment (parallel bars, swings, seesaw and sandbox) was replaced with modern playground equipment. The playground area in the mauka portion of the Playground was again reconfigured around 2006, adding a children's climbing structure.

Approximately 1.5 acres remain of the 1.8-acre original playground.

The current recreational features of the Playground include a playground with a climbing structure, basketball courts, volleyball courts, benches and open grass areas that are used for informal sporting activities, picnicking and daytime resting. Students from Voyager Public Charter School use the Playground. A farmers' market with a typical attendance of 5 vendors and 75 customers per week is held at the Playground on Monday mornings.

Basketball, playground, picnicking and volleyball are the activities designated for the Playground. Between 2009 and 2012, DPR has permitted various organized uses of the Playground.

A survey of park activity conducted by HART between November 9, 2012, and November 20, 2012 shows that the primary use of the Playground is by residents who camp in the Playground with sleeping mats, blankets, food coolers and bags, and wash and dry laundry around the comfort station. Nighttime observation indicated that this group of daytime users leaves the Playground during its hours of closure. Use by this resident population is concentrated around the comfort station.

Walkers, joggers, and dog walkers using or crossing the Playground were the second-most frequently observed use, followed by basketball, play-structure and bicycling use. Observed organized sporting events included a youth sports day and coaching of youth basketball skills. The majority of recreational use occurs in the makai portion of the Playground. Only the limited use of the play-structure is located adjacent to Halekauwila Street. Non-recreational uses included a weekly farmers' market and food bank delivery to neighborhood elderly.

The Playground qualifies for protection under Section 4(f) because (1) it is eligible for listing on the National Register under Criterion A, for its association with the national playground movement, and under Criterion C, for its architectural and landscape design by Harry Sims Bent, and (2) it is a public park. DPR concurs that overall (combined) proximity impacts would not substantially impair the activities, features, or attributes that qualify the Playground for protection under Section 4(f).

The Playground's setting is not an element of its National Register eligibility. We concur with HART's assessment that the Playground's setting has already been substantially altered, both by the fact that the buildings and uses that originally surrounded the Playground no longer exist and by the fact that the Playground's size and configuration were altered in the 1990s.

We also concur that the Playground's association with the national playground movement (Criterion A) will be unaffected by the HRTP's proximity to the mauka Playground boundary. To the extent that the Playground's equipment, architecture and layout still retain elements of the original design and features (Criterion C), the HRTP will not affect them. It will be located adjacent to the part of the Playground that retains the least integrity with respect to the original design and equipment, and will not, in any case, alter the design or intended use of the Playground.

The HRTP's proximity will not substantially impair the features and uses of the Playground. HART's recreational use survey indicates that the largest number of Playground users, who use the Playground as a living and resting space during the hours that it is open, are not sensitive to context. The HRTP would increase access for them (and for other users) but would not impair their use of the Playground. Other non-recreational users, such as dog walkers, joggers, picnickers and people who use the Playground for the farmers' market, will not be substantially impaired by the existence of the HRTP outside the Playground's boundaries.

The basketball and volleyball courts are at the end of the Playground farthest from the HRTP. Users of the courts will see the HRTP if they look towards the mauka end, where the view currently is of an apartment building. We concur with HART's conclusion that this change in the view will not substantially impair their recreational use.

The playground equipment for young children is closest to the HRTP, at the mauka end of the Playground. At present, users at the mauka end of the Playground look out across a street to an apartment building. The view of the apartment building will now be interrupted by the HRTP's pillars. We concur with HART's conclusion that this alteration in the view will not substantially impair the use of the mauka end of the Playground. The shade that the HRTP pillars and guideway provide during morning hours may be beneficial to users at that end of the Playground.

The HRTP will not restrict access to the Playground; in fact, HRTP will likely increase recreational use of the Playground, since two Rail stations are in close proximity. The effect of the HRTP will probably be overshadowed by the effect of the major high-rise projects planned for the property adjacent to the Playground. We anticipate more people using the Playground, both when people move into the high-rises, and when the HRTP is completed. Certainly, the Playground's comfort station usage will increase as a result of the HRTP, unless toilet facilities are provided at the HRTP station one block from the Playground. Increased use of the Playground is consistent with DPR's goal of maximizing park and recreational benefits to the public within limited available resources.

The HRTP would have little effect on the existing noise level at the Playground, and the noise analysis conducted by HART demonstrated that the HRTP would not cause a noise impact at the Playground. Vibration impacts from the HRTP will meet criteria protecting places where people sleep, and there will be no pile driving near the Playground to cause construction impacts. We concur with HART's analysis that these proximity impacts will not substantially impair any of the features that provide the Playground with protection under Section 4(f).

Therefore, DPR supports your non-use determination of the Playground, for the purpose of reconsideration of the Section 4(f) Non-Use Determination for Mother Waldron Neighborhood Park.

Should you have questions, please contact Rosalind Young, West Honolulu District Manager, at 522-7070.

Sincerely,

Toni P. Robinson
Director

HART

HONOLULU AUTHORITY for RAPID TRANSPORTATION

IN REPLY REFER TO:
CMS-AP00ENV-00238

Daniel A. Grabauskas
EXECUTIVE DIRECTOR AND CEO

April 17, 2013

Ms. Pua Aiu, Ph.D., Administrator
State Historic Preservation Division
Department of Land and Natural Resources
Kakuhihewa Building
601 Kamokila Boulevard, Suite 555
Kapolei, Hawaii 96707

Dear Dr. Aiu:

Subject: National Register of Historic Places (NRHP) Registration Form for Mother Waldron Playground, Honolulu Rail Transit Project (HRTP)

Please find enclosed a draft NRHP Registration Form for Mother Waldron Playground for your review and comment. Per Stipulation VI.C.2 of the Section 106 of the National Historic Preservation Act Programmatic Agreement for the HRTP, SHPD has 30 days to review and comment on NRHP Registration Forms.

Since Mother Waldron Playground was already listed on the Hawaii Register of Historic Places on June 9, 1988 as an element of the thematic group, "City and County of Honolulu Art Deco Parks," no additional coordination with your office is required regarding Stipulation VI.C, 3.

Please contact Mr. Stanley Solamillo of HART at (808) 768-6187 if you have any questions or if we can help facilitate your review in any way. Thank you for your continued support and review of this project.

Sincerely,

for Daniel A. Grabauskas
Executive Director and CEO

Enclosure

cc: Ms. Angie Westfall, SHPD
Ms. Faith Miyamoto, HART
Ms. Joanna Morsicato, HART

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property

Historic name: Mother Waldron Playground
Other names/site number: N/A
Name of related multiple property listing:
N/A
(Enter "N/A" if property is not part of a multiple property listing

2. Location

Street & number: Bounded by Coral, Halekauwila, Pohukaina, and Cooke streets
City or town: Honolulu State: Hawaii County: Honolulu
Not For Publication: ☐ Vicinity: ☐

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this ___ nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property ___ meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

___national ___statewide ___local

Applicable National Register Criteria:

___A ___B ___C ___D

Signature of certifying official/Title: **Date**

State or Federal agency/bureau or Tribal Government

In my opinion, the property ___ meets ___ does not meet the National Register criteria.

Signature of commenting official: **Date**

Title : **State or Federal agency/bureau or Tribal Government**

4. National Park Service Certification

I hereby certify that this property is:

___ entered in the National Register

___ determined eligible for the National Register

___ determined not eligible for the National Register

___ removed from the National Register

___ other (explain:) _____

Signature of the Keeper Date of Action

5. Classification

Ownership of Property

(Check as many boxes as apply.)

Private:	☐
Public – Local	X
Public – State	X
Public – Federal	☐

Category of Property

(Check only **one** box.)

Building(s)	☐
District	☐
Site	X
Structure	☐
Object	☐

Number of Resources within Property
(Do not include previously listed resources in the count)

Contributing	Noncontributing	
1		buildings
1	2	sites
		structures
		objects
2	2	Total

Number of contributing resources previously listed in the National Register 0

6. Function or Use
Historic Functions
(Enter categories from instructions.)
RECREATION AND CULTURE/outdoor recreation

Current Functions
(Enter categories from instructions.)
RECREATION AND CULTURE/outdoor recreation
LANDSCAPE/park

7. Description

Architectural Classification
(Enter categories from instructions.)
MODERN MOVEMENT
Moderne
_____
_____
_____
_____
_____

Materials: (enter categories from instructions.)
Principal exterior materials of the property: _CONCRETE, ASPHALT, STONE_

Narrative Description
(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph

Mother Waldron Playground is located between Halekauwila, Cooke, Pohukaina, and Coral streets. It is a modest park constructed in 1937 as a 1.76 acre (77,000 square feet) playground; it has been substantially altered from its original design since its initial construction, most recently in the 1990s. Built elements within the park include a comfort station and remaining portions of a low wall that encompasses the original park. The built components contain reserved design elements of the Art Moderne style, including a horizontal emphasis, rounded corners and piers, and streamlined appearance. Mother Waldron Playground has undergone several major alterations since its initial construction, including removal and replacement of some of the park's original features, and subsequent large expansions to compensate for other changes. The playground's setting just Diamond Head (southeast) of downtown Honolulu has transitioned from a mixed residential, commercial, and industrial area at the time of the park's construction into a major light industrial area now redeveloping into a mixed-use district.

Narrative Description

Architectural and Landscape Description

The playground has an essentially rectangular footprint and is divided into two halves: a large, Diamond Head (southeastern) grassy area and an Ewa (northwestern) paved area with an oval grassy center surrounded by a perimeter wall. A centrally located comfort station and low wall divides the two halves. Additional green space adjacent to the park is created by Coral Street's closure to vehicular traffic.

Ewa, Paved Area

The paved area is the original section of the park. It contains low walls, benches, a comfort station, and covered walkways all constructed of concrete brick. The brick has been painted tan throughout the park.

The paved area's landscaping consists largely of asphalt. Sandstone flagstone is used below the covered walkways and in the area in front of the comfort station's Ewa (northwest, Coral Street) elevation. The round elevated platform on the Ewa elevation is paved with the same flagstone. Ewa of this comfort station is an oval, grassy area. At the opening to Coral Street, the same sandstone flagstone is used and surrounded on either side by asphalt. Monkeypod and Royal Poinciana trees are found within the paved area as well as along the Coral Street perimeter wall. The paved area on the park's makai (southwest, Pohukaina Street) end contains two volleyball courts and one basketball court. The paved area on the park's mauka (northeast, Halekauwila Street) end contains small playground equipment. Clay brick, rather than the pervasive concrete brick, is used to border the sidewalk outside and around the paved park as well as provide paving at each convex curve entrance to the park.

Walls

Mother Waldron Playground's paved area is surrounded by an approximately three foot high perimeter wall. The wall is roughly nine inches thick. Along Coral Street, this wall zig-zags forming triangular points and provides a wide opening into the park. This wall is original. On the park's mauka and makai sides, the walls form rectangular zig-zags. Of these wall sections, neither are in their original locations nor contain original materials. The entire perimeter wall on Coral, Halekauwila, and Pohukaina streets is divided into three sections separated by two rows of recessed brick. The middle section of wall is perforated with alternating vertical and horizontal openings. Concrete coping on top of the wall consists of alternating zig-zag and straight edges and is slightly recessed from the wall's edges. These zig-zags hint at modest Art Deco stylistic influences, though the low wall expresses heavy influence from the streamlined, Art Moderne style. Three of the wall's four corners are convex curves with entrances into the park from the sidewalk. These entrances are anchored on either side by rounded piers. Rounded piers are also found on the park side of Coral Street's zig-zag wall junctures. The perimeter wall's Diamond

Head corner at Halekauwila Street is squared, does not allow access into the park, and is not original.

A lower, one foot high wall topped with terracotta tile runs along the paved area's Diamond Head border. This low wall connects to the higher wall at Halekauwila Street, connects to benches at the comfort station, then continues on the makai side of the comfort station before turning toward the open grassy area of the park and coming to an end.

Benches

Benches within Mother Waldron Playground are found in the alcoves created by the perimeter wall as well as in the middle of the park. These seating areas are fixed, permanent, built-in park fixtures. Along Coral Street, the triangular alcoves are filled with curved benches, whereas straight benches are found along Halekauwila and Pohukaina streets and the low wall separating the paved and grassy areas. The curved benches are original while the straight benches along Halekauwila and Pohukaina streets are not original. Two straight benches are found in the middle of the paved area and are original to the playground. Curved benches also follow beneath the comfort station's curved covered walkways, separating the paved area from the grassy area. All benches are narrower at the base than at the top, forming a triangular profile. The benches are topped with the same terracotta tile found on the park's low wall.

Comfort Station

The comfort station consists of a rectangular building flanked on either side by a curved covered walkway. The covered walkways' curves follow along the paved area's central grassy oval. The comfort station is single-story, low and horizontal, with a flat roof lined with zig-zag coping identical to that found on the perimeter walls. It is built of concrete bricks. Two rows of recessed concrete brick form horizontal lines across all of the building's facades near the water table and roofline. The comfort station displays influences of the streamlined, Art Moderne form and style.

At the comfort station's Ewa elevation, a central alcove lined with vertical pilasters forms the backdrop of a round, elevated platform. On either side of this alcove are open-air windows with vertical concrete grilles. The recessed row near the roofline intersects with the covered walkways' curved, flat roof. These covered walkways are supported by round columns with a horizontal band of recessed brick at the same level as the recessed brick at the comfort station's water table. The covered walkways' flat roofs project slightly over the piers. Where the covered walkways intersect with the Ewa elevation, a rounded wall the width of the covered walkway columns supports the walkway's roof and attaches to the building facade. These walls also help shield the entrances to the restrooms.

At the comfort station's mauka and makai elevations are open entrances to men's and women's restrooms. Drinking fountains are found in small oval alcoves near the entrances. Above the restroom entrances, the covered walkways' roofs intersect with the recessed row of brick near the roofline. On both the mauka and makai elevations, covered walkway columns abut the

comfort station. Diamond Head of each abutting covered walkway column is one small window identical to those found on the comfort station's Ewa elevation.

At the building's Diamond Head elevation, a small room projects from the center of the building. A small semi-circular roof projects from the top row of recessed brick to cover the entrance to the small room. The entrance is found on the makai side and is shielded from view by a short wall resembling the park's perimeter wall. This wall shares the same coping as the perimeter walls but is not perforated and contains no rows of recessed concrete brick. The projecting room's Diamond Head elevation also contains no recessed brick at the water table level. On the projecting room's mauka and Diamond Head elevations are two large vent openings covered by a metal grate. Four windows identical to those on the comfort station's Ewa elevation are found on the Diamond Head elevation, two on either side of the projecting room.

The comfort station's interior consists of two nearly-identical restrooms. Both contain one sink, several stalls, and a partially-enclosed changing area. The men's room contains a single urinal. The concrete walls and stall dividers are clad with white tile to the height of the stall walls. Above the tile the walls are painted. The stall doors are wood. The restroom floors are concrete. Although no plans for the comfort station interior were found, these interiors likely coincide with the comfort station's 1968 renovations.

Diamond Head, Grassy Area

Mother Waldron Playground's Diamond Head, rectangular grassy area was added to the park following Halekauwila Street's realignment in 1991-1992. Bound by Halekauwila Street, Cooke Street, Pohukaina Street and the original 1937 playground, this area contains no buildings, walls, benches, paving, or playground equipment. A brick, almond-shaped marker topped by a cast iron fence sits at the grassy area's corner at Halekauwila and Cooke streets. This marker is labeled *kapu*. *Kapu* means "forbidden" or "sacred," and the marker encircles an area where human remains were reinterred following Kakaako improvement projects in the 1990s. Royal Poinciana trees line the grassy area along Cooke Street with monkeypod trees clustered at the tree line's ends.

Former Coral Street Area

Mother Waldron Playground's Ewa area was added to the park around 1994-1995.[1] The area, formerly a portion of Coral Street, was closed between Halekauwila and Pohukaina streets following the completion of the 1991-1992 street realignment project. At both the mauka and makai ends of the former Coral Street area, trees were planted. Grass replaced the street pavement, but a small rectangular section of pavement remains near the former Coral Street entrance to Mother Waldron Playground.

[1] Letter from Michael N. Scarfone, Executive Director, Hawaii Community Development Authority, to Dona L. Hanaike, Director, Department of Parks and Recreation, December 14, 1994.

Alterations

Mother Waldron Playground has undergone major changes since its original construction. According to its Hawaii Register of Historic Places nomination form, completed in 1988, initial changes included renovations to the comfort station in 1968 and resurfacing the area in 1978. At that time, the park was bounded by Lana Lane on its Diamond Head border. The large grassy area now a part of the park contained commercial, residential, and industrial buildings for the majority of the playground's history.

In the 1980s, the Hawaii Community Development Authority (HCDA) began plans to help revitalize the industrial Kakaako area. Included in these community development plans were road reconfigurations aimed at improving Kakaako traffic patterns. In 1991-1992, the HCDA undertook street improvements along Halekauwila Street, among others. This realignment of Halekauwila Street required a taking of approximately 12,700 square feet of Mother Waldron Playground on the playground's mauka end; this represents approximately 17% of the original park that is no longer included in the present park.[2] To mitigate the taking and the subsequent diminished park size, the developed area Diamond Head of Lana Lane was removed. Lana Lane, separating the playground from the developed area, was also removed. Mother Waldron Playground was subsequently enlarged by approximately 54,000 square feet Diamond Head.[3] Although this 54,000 square foot area was officially designated for future use as part of Mother Waldron Playground, Coral Street's closure on the park's Ewa side was never officially considered part of the park until the mid-1990s when improvements were made to the former Coral Street area. This final change to Mother Waldron Playground's boundaries grew the park by an additional 25,800 square feet.

As a result of the taking, the mauka end of the playground lost its basketball court, perimeter wall, and benches. A perimeter wall and benches nearly identical to the original were reconstructed along Halekauwila Street, but the wall now connects to the original low wall topped by terracotta tile that remains extant; the tile was not used on the replacement wall. There is no longer a convex curved entrance at the original playground's Halekauwila Street and Lana Lane corner due to the alterations. The original court and play area was replaced with modern playground equipment.

Along Pohukaina Street, road widening related to district improvements forced the perimeter wall and benches to be removed and reconstructed approximately five to ten feet inside the playground's original boundary. To open Mother Waldron Playground to its newly-acquired 54,000 square feet Diamond Head, a higher wall running along Lana Lane and intersecting with the rear of the comfort station was removed and never replaced. The original handball court was also removed and never replaced.

[2] Documentation completed in 1985 stated that 8,400 square feet of Mother Waldron Playground would be removed due to Halekauwila Street's realignment; however, following realignment, plat maps indicate approximately 12,700 square feet was removed.
[3] State of Hawaii, et al., *Final Supplemental Environmental Impact Statement for the Kakaako Community Development District Plan* (Honolulu: Hawaii Community Development Authority, 1985), IV-45.

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- [X] A. Property is associated with events that have made a significant contribution to the broad patterns of our history.
- [ ] B. Property is associated with the lives of persons significant in our past.
- [X] C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- [ ] D. Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

- [ ] A. Owned by a religious institution or used for religious purposes
- [ ] B. Removed from its original location
- [ ] C. A birthplace or grave
- [ ] D. A cemetery
- [ ] E. A reconstructed building, object, or structure
- [ ] F. A commemorative property
- [ ] G. Less than 50 years old or achieving significance within the past 50 years

Areas of Significance
(Enter categories from instructions.)
SOCIAL HISTORY
ENTERTAINMENT/RECREATION
ARCHITECTURE
LANDSCAPE ARCHITECTURE

Period of Significance
1937 – 1945

Significant Dates
1937

Significant Person
(Complete only if Criterion B is marked above.)

Cultural Affiliation

Architect/Builder
Bent, Harry Sims

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

Mother Waldron Playground in Honolulu, Hawaii, is eligible for the National Register of Historic Places. It is significant under Criterion A in the area of social history and entertainment/recreation for its association with the organized play and playground movement in the United States during the early twentieth century, and under Criterion C in the areas of architecture and landscape architecture for its Art Moderne playground design. The period of significance spans from 1937, when construction commenced, until 1945, when the playground movement that supported supervised play largely ceased and Honolulu's Board of Parks and Recreation was formed to rehabilitate Oahu's parks following World War II.

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

Historical Narrative

Hawaii History

Early History

Polynesian settlers arrived in the isolated and uninhabited Hawaiian Islands as early as 300 A.D., with subsequent migrations taking place from the eleventh century through fourteenth century. Traversing the Pacific Ocean, these settlers brought with them a traditional land-based management system comprised of chiefs and commoners, as well as staple crops like wild ginger, gourds, taro, sugarcane, coconut, and sweet potato. A distinct Hawaiian culture evolved over time, celebrating unique stories and deities, and keeping order through a *kapu* governance system based on a strict code of conduct. By the time English Captain James Cook came to the islands in 1778, the islands' population was estimated as high as 300,000. Captain Cook named the islands the Sandwich Islands in honor of the Earl of Sandwich.[4]

Hawaiian Kingdom

Originally existing as a collection of independently ruled districts, the Hawaiian Islands were united as a single kingdom in 1810 by King Kamehameha I. Contact with Western sailing vessels gave the king access to weaponry enabling him to defeat his rivals. The king's death in 1819 led to the *kapu* system's demise, and Protestant missionaries, whalers, and traders arrived

[4] Edward Joesting, *Hawaii: An Uncommon History* (New York: W.W. Norton & Co., 1972), 13, 15, 27.

in the islands bringing Christianity and spreading disease that decimated the local population. The Hawaiian Kingdom, recognized as a sovereign nation, entered into treaties with foreign nations; the first such treaty with the United States took place in 1826. In 1840 Hawaii signed its first constitution, creating a government structure that included a representative body. Westerners continued flocking to the islands, bringing changes to Hawaii's economic structure and profiting from its lands and ideal trade route location. Sugarcane's rise as Hawaii's staple crop increased demand for labor, bringing immigrant workers from across the world to Hawaii.

Annexation

By 1885, a group of non-native businessmen formed the Hawaiian League and began discussing Hawaii annexation. The group pressured King Kalakaua to sign the Bayonet Constitution, stripping much of the king's authority and transferring it to a legislature comprised of a Hawaiian League majority. The king relented and signed the Bayonet Constitution on July 6, 1887. In 1891, Queen Liliuokalani assumed the throne and unsuccessfully attempted to repeal the Bayonet Constitution. This power struggle resulted in the Hawaiian League's overthrow of the monarchy; this coup was aided by United States Minister to Hawaii John L. Stevens and United States troops. Hearing of the overthrow, President Grover Cleveland ordered an investigation and called for the reestablishment of Hawaii's monarchy. Hawaii's Provisional Government instead pushed for United States annexation but failed to receive the required two-thirds vote in the United States Senate.

When William McKinley became president in 1897, Hawaii's annexation became a priority. The 1898 Joint Resolution annexed Hawaii and the 1900 Hawaiian Organic Act officially made Hawaii a United States territory. Hawaii became the fiftieth state in 1959.

Kakaako

The Kakaako district is situated between Honolulu and Waikiki on Oahu. The area long existed as swampland, and under the rule of King Kamehameha I, was used for fishing, canoe landings, salt production, cultivating taro, and religious practices. Although Honolulu Harbor experienced rapid growth through the 1800s, few lived in Kakaako during this time. In 1848, much of Hawaii's lands were turned over to private ownership in what was called the Great Mahele; the land in Kakaako became part of the Bernice Pauahi Bishop estate. By 1876, however, a government map of Oahu labeled the area as the "Kakaako Salt Works" with no major roads passing through the area. Roads between Honolulu and Waikiki bypassed Kakaako to the north. A decade later, Kakaako obtained an "Immigration Depot" and was the location of a battery, but otherwise little development occurred in the area.[5]

Continued growth in Honolulu eventually forced Kakaako's transition from a sparsely populated industrial area into a densely populated residential and commercial district. Demand for land near Honolulu Harbor led to the shallow reef adjacent to Kakaako being filled in and developed,

[5] Oahu Government Survey 1876, Registered Map No. 1380 (Hawaii Land Survey Division); Wall, W. A., Honolulu and Vicinity 1887, Hawaiian Government Survey (Library of Congress).

expanding the land comprising Kakaako. Now-defunct Fort Armstrong was constructed on this infill near the mouth of Honolulu Harbor. Eventually, large tracts of Kakaako land held by the Bishop and Curtis Perry Ward estates were subdivided. With the Honolulu Iron Works and Hawaiian Tuna Packers establishing businesses in Kakaako, other small enterprises soon followed. Residents quickly arrived: Hawaiian, Japanese, Portuguese, Filipino, and Puerto Rican families all found a home in Kakaako. Largely residing within their own housing "camps," these varying cultural groups lived and worked side-by-side in Kakaako, creating what has been referred to as a microcosm of Hawaii.[6]

By the mid-twentieth century, Kakaako's population began to decline as residential areas slowly yielded to Kakaako's current industrial uses. The area also fell into disrepair, and efforts were made by the HCDA to improve roadway infrastructure within Kakaako, including realignment of Halekauwila Street.[7] Future plans for Kakaako include increased residential housing units, repopulating an area that was once a thriving community.

The Playground Movement

Playgrounds developed out of concern for the poor, aiming to help mold children and young adults into law-abiding citizens. Directors were hired to organize activities at the playgrounds, instilling a sense of order to the parks. This early urban reform movement was also seen as a means to help recent immigrants assimilate into American culture. The earliest playgrounds were developed by private investors who built these spaces for public use in the 1880s. In the following decades, cities took a greater role in providing public playgrounds and recreation areas for their residents. The 1906 Playground Association of America aimed to promote physical and mental well-being through playgrounds across the country and sent members to assess select cities' particular recreational needs. By the 1930s, many cities had created full-fledged recreation departments to deal with recreation management and operations.

Honolulu's public playground development followed the national pattern and was promoted early on by the women leaders of the Free Kindergarten and Children's Aid Association. The group established the first public playground in Chinatown at Beretania and Smith streets in 1911. Over the years, the organization functioned as Honolulu's recreation department until the city's Recreation Commission was created in 1922 through the efforts of Henry Stoddard Curtis. Curtis, a former secretary of the Playground Association of America, surveyed Honolulu and urged the city to create new parks and playgrounds. Honolulu established a park board in 1931, hired Harry Sims Bent as park architect in 1933, and by 1936, forty playgrounds and social centers were supervised by the Recreation Commission.

Much of Honolulu's growth in park, playground, and recreational facilities, including Mother Waldron Playground, can be attributed to increased federal assistance from New Deal programs in response to the Great Depression. Both the Federal Emergency Relief Administration (FERA)

[6] Marsha Gibson, *Kaka'ako As We Knew It* (Honolulu: Mutual Publishing, 2011).
[7] State of Hawaii, et al., *Final Supplemental Environmental Impact Statement for the Kakaako Community Development District Plan* (Honolulu: Hawaii Community Development Authority, 1985); Austin, Tsutsumi, and Associates, Inc., *Kakaako Traffic Study* (Honolulu: Hawaii Community Development Authority, 1991).

and the Civil Works Administration (CWA) provided manpower for Honolulu's park construction initiative. Additional manpower came by way of the Works Progress Administration (WPA) and the National Youth Administration (NYA), which allowed Honolulu to employ playground directors.

Playgrounds did not exist as places where children were free to play on their own. Play existed not only for healthy development, but also as an educational tool that required organization and supervision. Thus, playground directors were employed to monitor the children's activities and act as a role model. The director helped organize team games, schedule activities, and restrict playground access to bullies. Through their various activities, playgrounds and recreation centers were seen as alternative choices to youth gangs, delinquency, or wasted time.[8]

Following World War II, the playground movement largely ceased, as child development experts began supporting unstructured play as more beneficial to children's development. Supervised play at parks and playgrounds as it existed prior to the war largely ceased. Honolulu's Parks Board merged with the Recreation Commission to form the Board of Public Parks and Recreation in 1946. The new board was tasked to rehabilitate Oahu's damaged parks.[9] By the end of the 1940s, American playgrounds began turning their focus to playground equipment aimed to allow free play and imagination rather than supervised play supported by recreation leaders.[10]

Harry Sims Bent

Harry Sims Bent, Mother Waldron Playground's architect, was born in Socorro, New Mexico, in 1896. After graduating from the University of Pennsylvania, Harry Sims Bent began his career working for prominent New York architectural firm Bertram Goodhue Associates. Bent's early work consisted primarily of building projects in the Los Angeles, California area, including the Los Angeles Central Library and several buildings at the California Institute of Technology.

In the late 1920s, Bent arrived in Honolulu assigned with supervising construction of the Academy of Arts as a representative and "resident architect" of Bertram Goodhue Associates. Following the Academy of Art's completion, Bent remained in Hawaii, first acquiring work through Bertram Goodhue Associates but later for his own independent practice.

Bent originally volunteered his time working on plans for the Honolulu Park Board in the 1930s, but ultimately worked on nearly all projects undertaken by the Board up through 1939. He was considered one of the most talented architects in Hawaii in the late 1920s-30s, with prominent Bertram Goodhue Associates and independent works including the C. Brewer Building,

[8] Robert R Weyeneth and Ann K. Yoklavich, *1930s Parks and Playgrounds in Honolulu: an Historical and Architectural Assessment* (Honolulu: Department of Parks and Recreation, 1987).
[9] Ann K. Yoklavich, *Overview of Historic Honolulu Parks* (Honolulu: Department of Parks and Recreation, 1987), 4.
[10] Susan G. Solomon, *American Playgrounds: Revitalizing Community Space* (Lebanon, NH: University Press of New England, 2005), 22.

Hanahauoli School, the Pineapple Research Institute at the University of Hawaii, and several residences. [11]

Bent's first task for the Honolulu Park Board was the Ala Moana Park project in 1933. The park's designed features included the canal bridge, entrance portals, sports pavilion, banyan court, and lawn bowling green. Other Bent park projects included Mother Waldron Playground, Kawananakoa Playground, Ala Wai Clubhouse, the Haleiwa Beach Park structures, and the Lanakila Park comfort station. Utilizing popular Art Moderne and Art Deco design elements, he aimed to create a modern look for his park work, a break from typical park and playground design. Bent incorporated contemporary design aesthetics into his park plans, while earlier playground examples addressed only functionality.

Bent returned to the mainland around 1940, and settled in Pasadena, California, where he continued his landscape design work. Major works during his post-Hawaii period included the landscape plan for Hancock Park in Los Angeles and the master plan for the Los Angeles County Arboretum. Bent died in Pasadena on March 19, 1959.

Margaret "Mother" Waldron

Margaret "Mother" Waldron was born on August 12, 1873, in Honolulu of mixed Hawaiian and Irish heritage. Her career began at Pohukaina School where she taught the fourth grade. Mother Waldron's time outside of school was spent as a volunteer playground director at Atkinson Park and welfare worker in Kakaako. Her duties included coaching boys' football and baseball and teaching girls and women household duties and jam-making.

For her fiftieth birthday, the boys and girls of Kakaako gave Mother Waldron a pin bearing the word "mother." The pin became Mother Waldron's most prized possession. Mother Waldron was credited with nearly single-handedly ridding Kakaako of its gangs and turning their members into law-abiding citizens. She helped transform the district's unpleasant reputation and would be greeted with "Aloha Mother" throughout Kakaako.[12]

Margaret Waldron died at St. Francis Hospital on May 8, 1936, and was buried on May 10, Mother's Day that year.[13]

Mother Waldron Playground

Mother Waldron Playground was originally a 1.76 acre site bounded by Coral, Halekauwila, and Pohukaina streets and Lana Lane on a parcel that the 1914 Sanborn Fire Insurance map noted contained the City and County Stables. Honolulu acquired the parkland in 1930 and 1931 through purchases and deeds from the territory of Hawaii. After several years, the Park Board

[11] Steve Salis, "Playful Architecture," *Hawaii Architect* (June 1985): 12-13.
[12] "Guava Class at Kakaako is Waldron Plan," *Honolulu Star-Bulletin*, February 27, 1930, 4.
[13] "Death Claims Mrs. Waldron, Friend of Poor," *Honolulu Advertiser*, May 8, 1936, 1.

approved and implemented Harry Sims Bent's plans for the playground in 1936. WPA labor was used to construct the park.

The site of the future playground was proposed to be named in 1930 for Margaret "Mother" Waldron, but she refused the honor.[14] Her name was given to the park following her death in 1936. Costing approximately $50,000 to construct, Mother Waldron Playground opened September 20, 1937 to much fanfare, including a performance by the Royal Hawaiian Band.[15]

Original Appearance of Mother Waldron Playground

Bent planned the playground following his successful design features at Ala Moana Park, implementing contemporary design elements reflecting the Art Moderne style. The symmetrical playground, situated in a dense residential, commercial, and industrial area, was designed to emphasize utility as well as beauty. Bent used concrete bricks to construct Mother Waldron Playground's walls, benches, and comfort station.

A perimeter wall delineated the playground boundaries along Coral, Pohukaina, and Halekauwila streets and Lana Lane. The wall contained horizontal and vertical perforated openings and was comprised of several brick courses, with some courses recessed to create horizontal bands. Each of the park's corners contained a convex curve entry with rounded piers anchoring the walls' ends. Along Coral Street, the wall was executed in a triangular zig-zag form and opened to Coral Street, while Halekauwila and Pohukaina streets provided squared zig-zag walls. Lana Lane's wall was straight, did not zig-zag, and contained no horizontal bands or perforations. The entire perimeter wall was topped by recessed concrete coping with alternating straight and zig-zag edges.

Laid out symmetrically, the park's mauka end was to be used by younger children while the makai end was to be used by older children. An oval, grassy area and comfort station divided the two halves at the playground's center. The park utilized an Art Moderne style that was increasing in popularity during the time, yet seldom used for parks and playgrounds. Both sides contained volleyball, basketball, and shuffleboard courts. The mauka end contained swings and seesaws, while the makai end contained handball courts.

Bent's central Art Moderne feature was a comfort station that employed a streamlined and unornamented facade, rounded corners and columns, and covered walkways curving away from the comfort station. The comfort station contained men's and women's restrooms, drinking fountains at the entrances of both restrooms, and changing areas inside. At the comfort station's center, a raised and rounded platform provided an outdoor stage area with a pilaster-lined alcove backdrop. The stage, its surrounding area, and floor beneath the covered walkway were paved with the same sandstone flagstone found at the park's Coral Street entrance.

[14] "Playground Given Name of Pioneer," *Honolulu Advertiser*, February 19, 1930, 1.
[15] "Waldron Playground—Kakaako Beauty Spot," *Honolulu Advertiser*, September 20, 1937, 5; "Playground to Open Monday," *Honolulu Star-Bulletin*, September 13, 1937, 12; "$50,000 Mother Waldron Park Officially Opened," *Honolulu Advertiser*, September 21, 1937, 1.

Park benches topped with terracotta tile were found within the perimeter wall in alcoves created by the wall's zig-zag as well as in the middle of each play area. Most benches were straight, but the benches along the Coral Street wall curved to fit their spaces. An additional low wall topped with terracotta was located beneath the comfort station's covered walkway, running parallel to the higher wall along Lana Lane. Trees were planted in openings created by the perimeter wall's zig-zag shape, providing shade to the park's users.[16]

Mother Waldron Playground's Use of Contemporary Architectural Styles

Harry Sims Bent's design for Mother Waldron Playground reflected heavy influence from the streamlined Art Moderne style popular at the time. Art Moderne emphasized horizontal lines, flat roofs, smooth surfaces, and curvilinear edges. Art Moderne and its counterpart, Art Deco, which utilized vertical lines and geometric patterns, were seen as a rejection of classical architectural themes. Both design motifs embraced architectural elements deemed appropriate for the modern era. Bent was inspired by these national architectural trends, and desired to create a playground that was viewed as a contemporary design expression, moving beyond mere playground utility.[17]

Changes to Mother Waldron Playground

According to the 1988 Hawaii Register of Historic Places nomination form that included Mother Waldron Playground, renovations were made to Mother Waldron Playground's comfort station in 1968. The form does not state the extent of the renovations; a visual inspection indicated that no substantial alterations occurred, as many original features and finishes remained intact. Additionally, the Department of Parks and Recreation resurfaced the playground in 1978.[18] In 1991-1992, Halekauwila Street was realigned through Mother Waldron Playground, removing approximately 12,700 square feet of the original park's mauka end and a small portion along Pohukaina Street. To mitigate this taking, the city added approximately 54,000 square feet of Mother Waldron Playground and removed Lana Lane greatly enlarging the park. The expansion included extending the park Diamond Head, removing the park's bordering wall along Lana Lane, and reconstructing the park's perimeter walls along Halekauwila and Pohukaina streets.[19] In 1994-1995, Coral Street was closed between Halekauwila and Pohukaina streets and included in the expansion of Mother Waldron Playground, adding approximately 25,800 square feet to the park. These additions are now considered non-contributing sites within the greater Mother Waldron Playground site.

[16] Research did not provide the specific varieties of trees originally planted at Mother Waldron Playground.
[17] Weyeneth and Yoklavich, *1930s Parks and Playgrounds in Honolulu,* 16.
[18] Mother Waldron Playground, City & County of Honolulu Art Deco Parks Hawaii Register of Historic Places nomination form, April 20, 1988.
[19] See above Architectural and Landscape Description: Alterations.

Prior Documentation of Mother Waldron Playground

Mother Waldron Playground was listed in the Hawaii Register of Historic Places on June 9, 1988, as an element of the thematic group "City & County of Honolulu Art Deco Parks," prior to the extensive 1990s changes.

The playground was documented on a Determination of Eligibility form by Mason Architects, Inc. in 2008. This documentation assessed the property as eligible for listing in the National Register under Criteria A and C; the Hawaii State Historic Preservation Division (SHPD) concurred with this finding.

This nomination exists as part of the legal requirements in the *Programmatic Agreement Among the U.S. Department of Transportation Federal Transit Administration, The Hawaii State Historic Preservation Officer, The United States Navy, and the Advisory Council on Historic Preservation Regarding the Honolulu High-Capacity Transit Corridor Project in the City and County of Honolulu, Hawaii*.[20]

Information discovered while performing research for this nomination revealed substantial changes that occurred in the playground in the 1990s that were not described in the 2008 Determination of Eligibility form. This nomination considers those changes.

Significance Evaluation

Mother Waldron Playground is eligible for the National Register of Historic Places under Criterion A for its association with the national playground movement, which aimed to provide supervised play and character-molding opportunities. The property correlates with the rise of playground construction in urban areas throughout the United States.

Mother Waldron Playground is not eligible under Criterion B. Although the park is named in honor of Margaret "Mother" Waldron, the property is not associated with her productive life or her lasting contributions to the Kakaako community.

This property is also eligible under Criterion C for its architectural and landscape design by Harry Sims Bent. The property displays a streamlined Art Moderne appearance with some Art Deco elements, a modern approach and a display of Harry Sims Bent's desire to create a pleasing environment for the park's users. Contributing features to Mother Waldron Playground include the remaining original Art Moderne playground site and the streamlined comfort station building. Non-contributing features include an approximately 1.5 acre site nearly doubling the size of the remaining Mother Waldron Playground original site as well as the former Coral Street area. These non-contributing sites became an extension of Mother Waldron Playground

[20] *Programmatic Agreement Among the U.S. Department of Transportation Federal Transit Administration, The Hawaii State Historic Preservation Officer, The United States Navy, and the Advisory Council on Historic Preservation Regarding the Honolulu High-Capacity Transit Corridor Project in the City and County of Honolulu, Hawaii*, (January 2011).

following Halekauwila Street improvements in 1991-1992 and continued Kakaako district improvements through 1994-1995. Still, the retention of the playground's prominent Harry Sims Bent designed features, including the zig-zag wall and comfort station, allows Mother Waldron Park to be eligible under Criterion C.

The property retains its original historic function; thus, its period of significance for Mother Waldron Playground spans from its construction date in 1937 until 1945, when supervised play largely ceased and Honolulu's Board of Parks and Recreation was formed to rehabilitate Oahu's parks following World War II.

Social History

Mother Waldron Playground is associated with the playground movement across the United States and Honolulu's need for recreational facilities within urban areas. Playgrounds were viewed as a means to reform urban youth and help create law-abiding citizens through structured play.

Entertainment/Recreation

Mother Waldron Playground provided recreational facilities for urban-dwelling youth. The park did not allow children to play freely; instead, belief systems at the time required organized play for children overseen by a playground director.

Architecture and Landscape Architecture

Mother Waldron Playground is an example of Harry Sims Bent's architecture and landscape architecture work. At the time, Bent acted as the Honolulu Park Board's chief designer, planning parks and playgrounds throughout the 1930s. His Art Moderne with Art Deco design represented a modern approach for Mother Waldron Playground. Bent's design fulfilled the needs required by "organized play" by dividing the park into two halves for different age groups and also providing a comfort station for users. The park demonstrates Bent's desire to create a functional yet aesthetically pleasing urban playground.

Period of Significance

The period of significance for Mother Waldron Playground spans from 1937, when construction commenced, until 1945, when the playground movement that supported supervised play largely ceased and Honolulu's Board of Parks and Recreation was formed to rehabilitate Oahu's parks following World War II.

Integrity Evaluation

Mother Waldron Playground retains a moderate level of integrity of location. Original portions of the playground remain in place, but other areas originally associated with the playground are no longer part of the site, and other areas not historically part of the playground have been added.

The playground has a low level of integrity of materials, design, and workmanship. Halekauwila Street's realignment and the widening of Pohukaina Street have compromised the park's design, removing over 12,700 square feet of the original park boundaries and demolishing and replacing original features, diminishing the integrity of workmanship and materials. However, although many original features of the park have been removed and replaced, the playground retains a modest amount of original features, including most of the zig-zag wall and the comfort station, to demonstrate a low integrity of materials and workmanship. Mother Waldron Playground does not retain integrity of setting outside of the park; within the park open spaces and a general playground appeal contribute to a moderate level of integrity of setting. The Kakaako area has transitioned over time from a mix-use commercial and residential district to a largely industrial area. Mother Waldron Playground is now surrounded by these industrial buildings. Mother Waldron Playground retains its integrity of feeling as an Art Moderne-designed playground and its integrity of association with the early-1900s playground movement. Therefore, the playground retains integrity of feeling and association.

9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form.)

"$50,000 Mother Waldron Park Officially Opened." *Honolulu Advertiser,* September 21, 1937.

Austin, Tsutsumi, and Associates, Inc. *Kakaako Traffic Study*. Honolulu: Hawaii Community Development Authority, 1991.

"Death Claims Mrs. Waldron, Friend of Poor." *Honolulu Advertiser*, May 8, 1936.

Gibson, Marsha. *Kaka'ako As We Knew It*. Honolulu: Mutual Publishing, 2011.

"Guava Class at Kakaako is Waldron Plan." *Honolulu Star-Bulletin*, February 27, 1930.

Joesting, Edward. *Hawaii: An Uncommon History*. New York: W.W. Norton & Co., 1972.

Letter from Michael N. Scarfone, Executive Director, Hawaii Community Development Authority, to Dona L. Hanaike, Director, Department of Parks and Recreation, December 14, 1994.

Mother Waldron Playground, City & County of Honolulu Art Deco Parks Hawaii Register of Historic Places nomination form, April 20, 1988.

"Playground Given Name of Pioneer." *Honolulu Advertiser*, February 19, 1930.

"Playground to Open Monday." *Honolulu Star-Bulletin*, September 13, 1937.

Salis, Steve. "Playful Architecture." *Hawaii Architect* (June 1985): 12-13.

State of Hawaii. Oahu Government Survey 1876, Registered Map No. 1380. Hawaii Land Survey Division, 1876.

State of Hawaii, et al. *Final Supplemental Environmental Impact Statement for the Kakaako Community Development District Plan*. Honolulu: Hawaii Community Development Authority, 1985.

Solomon, Susan G. *American Playgrounds: Revitalizing Community Space*. Lebanon, NH: University Press of New England, 2005.

"Waldron Playground-Kakaako Beauty Spot." *Honolulu Advertiser*, September 20, 1937.

Wall, W.A. Honolulu and Vicinity 1887, Hawaiian Government Survey. Library of Congress, 1887.

Yoklavich, Ann K. *Overview of Historic Honolulu Parks*. Honolulu: Department of Parks and Recreation, 1987.

Weyeneth, Robert R., and Ann K. Yoklavich. *1930s Parks and Playgrounds in Honolulu: an Historical and Architectural Assessment*. Honolulu: Department of Parks and Recreation, 1987.

Previous documentation on file (NPS):

____ preliminary determination of individual listing (36 CFR 67) has been requested
____ previously listed in the National Register
_____previously determined eligible by the National Register
_____designated a National Historic Landmark
____ recorded by Historic American Buildings Survey #_____
_____recorded by Historic American Engineering Record # _____
____ recorded by Historic American Landscape Survey # _____

Primary location of additional data:

____ State Historic Preservation Office
____ Other State agency
____ Federal agency
____ Local government
____ University
____ Other

Mother Waldron Playground
Name of Property

Honolulu County, Hawaii
County and State

Name of repository: _____

Historic Resources Survey Number (if assigned): _____

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10. Geographical Data

Acreage of Property 3.76

Use either the UTM system or latitude/longitude coordinates

Latitude/Longitude Coordinates
Datum if other than WGS84:_____
(enter coordinates to 6 decimal places)

1. Latitude: 21.299251 Longitude: -157.858407
2. Latitude: Longitude:
3. Latitude: Longitude:
4. Latitude: Longitude:

Or
UTM References
Datum (indicated on USGS map):

☐ NAD 1927 or ☐ NAD 1983

1. Zone:	Easting:	Northing:
2. Zone:	Easting:	Northing:
3. Zone:	Easting:	Northing:
4. Zone:	Easting :	Northing:

Verbal Boundary Description (Describe the boundaries of the property.)

See Map Attachment

Boundary Justification (Explain why the boundaries were selected.)

Mother Waldron Playground's boundary includes the entire area presently called Mother Waldron Playground. This footprint includes a portion of the original playground, its Diamond Head expansion, and the former Coral Street area between Halekauwila and Pohukaina streets. Although the playground's size was altered in the 1990s, these changes did not affect the playground's use as a public playground. This boundary corresponds to the boundary concurred to by the Hawaii State Historic Preservation Division in an earlier 2008 eligibility assessment, despite 1990s changes to the playground.

The boundary encompasses all of the remaining original resources and features that comprise the property, as well as more recent additions. The National Register boundary has been prepared in accordance with guidelines established by the National Register Bulletin, "Defining Boundaries for National Register Properties."[21]

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11. Form Prepared By

name/title: Cultural Resources Team
organization: Honolulu Authority for Rapid Transportation
street & number: 1099 Alakea Street, 17th Floor
city or town: Honolulu state: Hawaii zip code: 96813
e-mail
telephone: (808) 566-2299
date: 2/1/2013

Additional Documentation

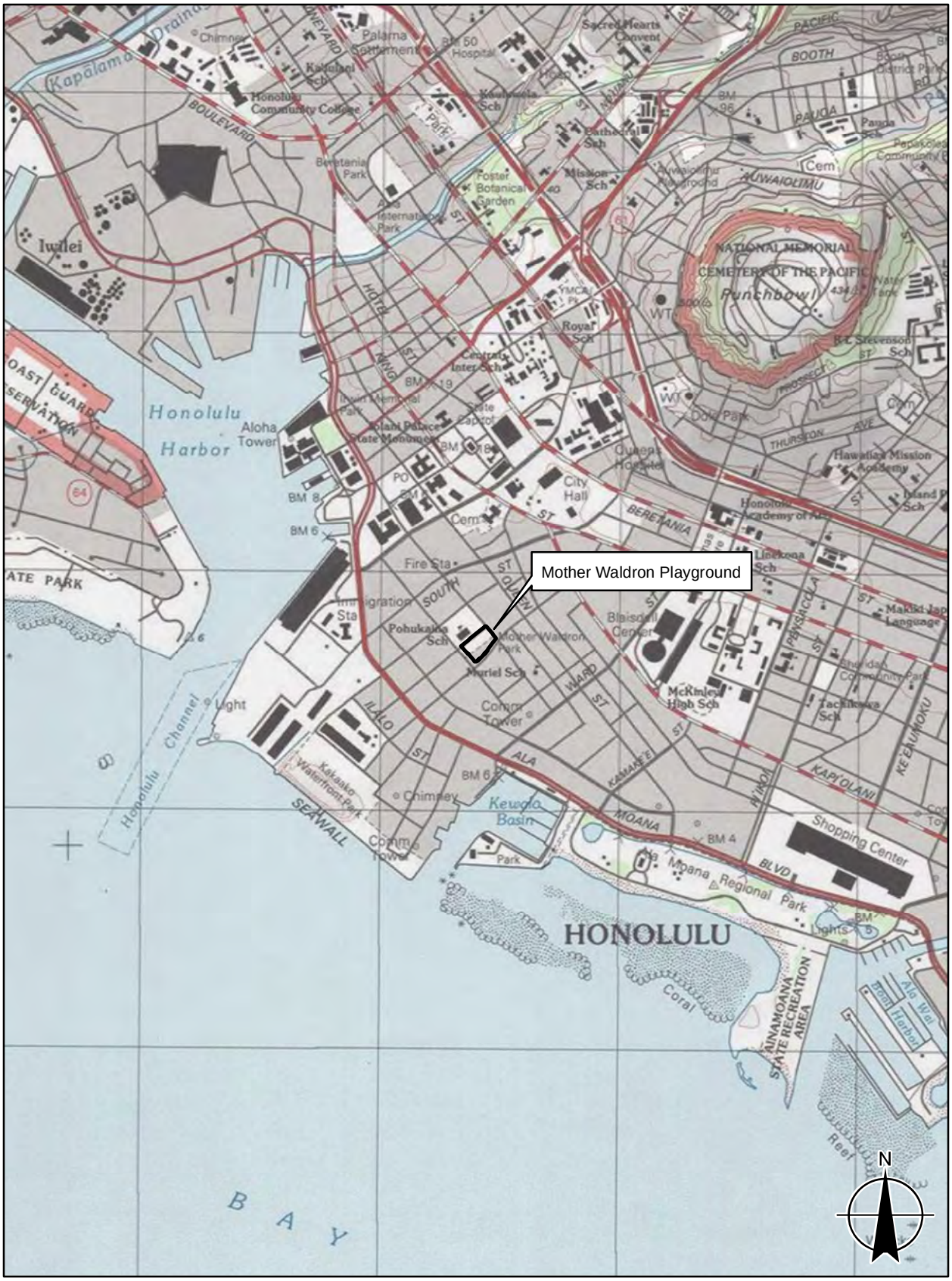
Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- **Additional items:** (Check with the SHPO, TPO, or FPO for any additional items.)

[21] National Park Service, *National Register Bulletin: Defining Boundaries for National Register Properties* (Washington, D.C.: United States Department of the Interior, 1997).

Mother Waldron Playground
Bounded by Coral Street, Halekauwila Street, Pohukaina Street, and Cooke Street
City and County of Honolulu, Hawaii
Hawaii Register of Historic Places, No. 80-14-1388

Mother Waldron Playground

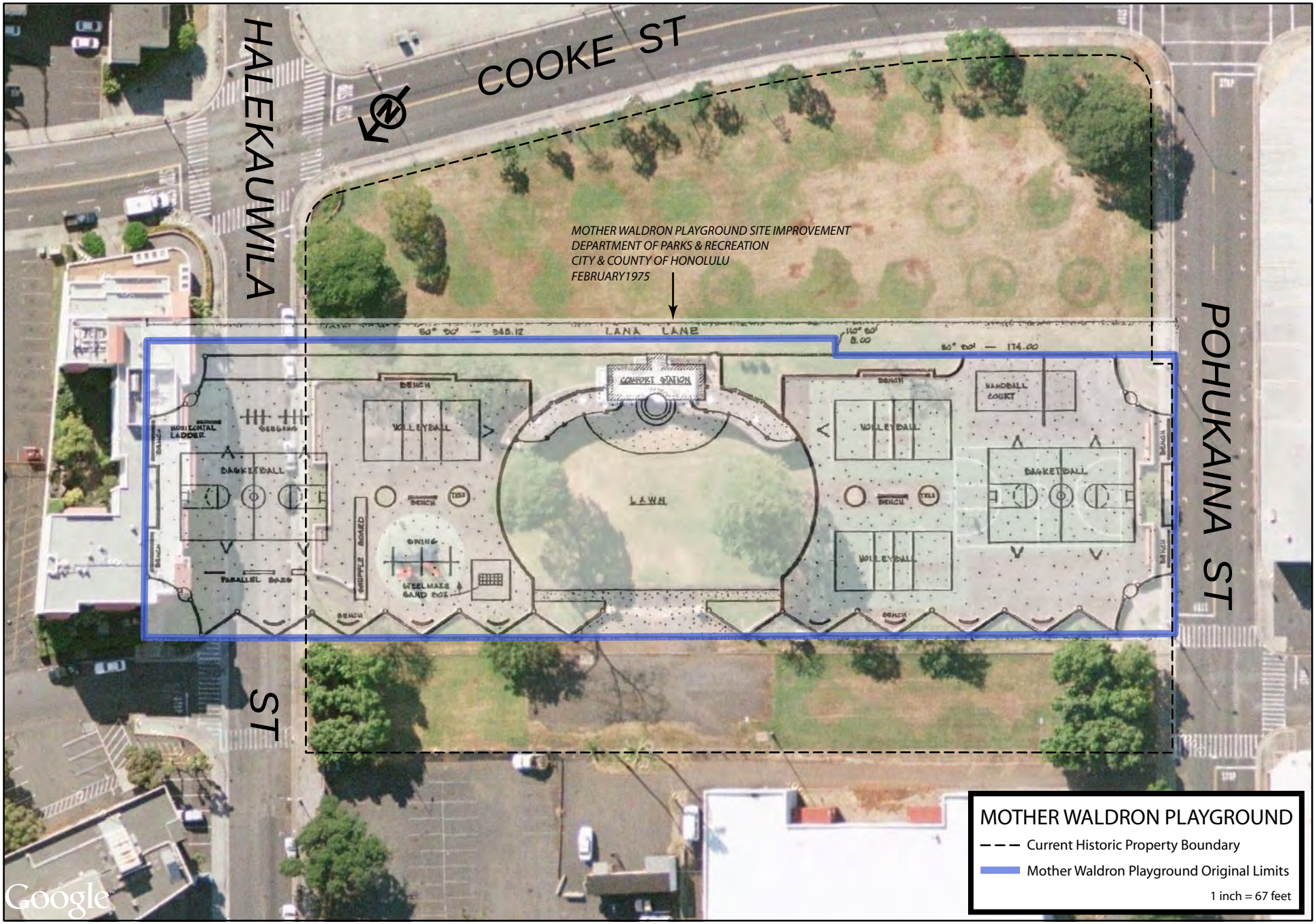


USGS Honolulu Quad, 1998

Property Boundary

1,000 Feet

1:24,000


HALEKAUWILA ST
COOKE ST
POHUKAINA ST
MOTHER WALDRON PLAYGROUND SITE IMPROVEMENT
DEPARTMENT OF PARKS & RECREATION
CITY & COUNTY OF HONOLULU
FEBRUARY1975
LANA LANE
COMFORT STATION
VOLLEYBALL
BASKETBALL
HANDBALL COURT
LAWN
SWING
PARALLEL BARS
SHUFFLE BOARD
WHEELMAZE & SAND BOX
BENCH
MOTHER WALDRON PLAYGROUND
Current Historic Property Boundary
Mother Waldron Playground Original Limits
1 inch = 67 feet
Google

Photographs

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

Photo Log

Name of Property: Mother Waldron Playground

City or Vicinity: Honolulu

County: Honolulu State: Hawaii

Photographer: Charles Greenleaf

Date Photographed: 11/17/2012

Description of Photograph(s) and number, include description of view indicating direction of camera:

1 of 8. View south toward Mother Waldron Playground from Halekauwila Street and Coral Street into original playground area

2 of 8. View north from Pohukaina Street and the former Lana Lane into original playground area

3 of 8. View northeast from wall along Pohukaina Street into original playground area

4 of 8. View southwest from Halekauwila Street and 1991-1992 expansion area toward original playground area

5 of 8. View north from Pohukaina Street toward original playground area and its former handball court

6 of 8. View northeast from Pohukaina Street toward original playground area and 1991-1992 expansion area

7 of 8. View northeast toward comfort station

8 of 8. View east toward comfort station from original playground entrance at Coral Street

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management. U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

Photo 1.

Photo 2.

Photo 3.

Photo 4.

Photo 5.

Photo 6.

Photo 7.

Photo 8.

HAWAII COMMUNITY DEVELOPMENT AUTHORITY

KAKAAKO KALAEOA

Neil Abercrombie
Governor

Brian Lee
Chairperson

Anthony J. H. Ching
Executive Director

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Ref. No.: PL GEN 1.28a

March 13, 2013

Ms. Joanna Morsicato
Deputy Chief, Planning and Environment
Honolulu Authority for Rapid Transportation
1099 Alakea Street, Suite 1700
Honolulu, Hawaii 96813

Dear Ms. Morsicato:

Re: National Register of Historic Places Registration Form
for Mother Waldron Playground

Thank you for the opportunity to comment on the subject nomination form for the Mother Waldron Playground located in the Kakaako Community Development District Mauka Area. We offer the following comments on the application:

- The property, as presented in the narrative description, includes two areas that do not meet the significance criteria identified in Section 9, Page 11. The two areas include:

  a. A grassy area adjacent to the historic comfort station and perimeter walls. The grassy area is identified as TMK: 1-2-1-51: 003 and was constructed in 1992 as an expansion to Mother Waldron Playground under the Hawaii Community Development Authority's ("HCDA") Improvement District 3 project. The grassy area was previously owned by Kamehameha Schools and was comprised of two-story industrial warehouses built in the early 1950s.

  b. The former Coral Street, a functioning street, was closed and landscaped in the early 1990s.

  The significance criteria cited includes: (1) *Criterion A:* Area of social history and entertainment/recreation for its association with the organized play and playground movement in the United States during the early twentieth century; and

(2) *Criterion C:* Area of architecture and landscape architecture for its Art Moderne playground design. Neither the grassy area nor the former Coral Street are associated with the organized play and playground movement in the United States in the early twentieth century nor is of the Art Moderne playground design. These two areas should not be included as part of the historic Mother Waldron Playground.

We do, however, support the nomination of the comfort station, walls and benches designed by Harry Sims Bent. We note that this portion of Mother Waldron Playground (identified as TMKs: 1-2-1-51: 005 and 006) was placed on the Hawaii Register of Historic Places in 1989.

- In Section 7, Page 8, second paragraph, we note it was the HCDA, not the City and County of Honolulu that promulgated plans to revitalize the Kakaako District.

- In Section 7, Page 9, Item No. 8, Statement of Significance, the grassy area nor the former Coral Street are not associated with events that have made a significant contribution to the broad patterns of our history nor does it embody the distinctive characteristics of a type, period, or mention of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

- Section 9, Page 13, second paragraph, it was the HCDA, not the City and County of Honolulu that made efforts to improve roadway infrastructure in the Kakaako Community Development District. The HCDA is a State agency.

In summary, we respectfully ask that the grassy area and the former Coral Street be removed from the property description and the project site be contained to the area designed by Harry Sims Bent, including the walls, benches and comfort station.

Should you have any questions regarding this matter, please contact Mr. Deepak Neupane, Director of Planning and Development, at 594-0300 or via email at: deepak@hcdaweb.org.

Sincerely,

Anthony J. H. Ching
Executive Director

AJHC/DN/ST:ak

HART

HONOLULU AUTHORITY for RAPID TRANSPORTATION

www.HonoluluTransit.org • info@HonoluluTransit.org • (808) 566-2299